# The Orchadian

Volume 19, Number 12 June 2020

Official Journal of the Australasian Native Orchid Society Inc.

Royal Botanic Gardens
Melbourne
22 JUL 2020
LIBRARY

*Dendrobium* Australian Butter Bright 'Razz' Photo Phil Radford

# *The Orchadian*

Official Journal of the Australasian Native Orchid Society Inc. Founded 1963

**www.anos.org.au**

Dedicated to the study and conservation of Australasian native orchids

Print Post Approved: 100000950, ISSN 04774-3342

Patron: David Cannon

**June 2020 Volume 19 Number 12**


## CONTENTS


| | | |
|---|---|---|
| Editorial | Peter B. Adams | 531 |
| President's Report | Peter B. Adams | 532 |
| Copyright and *The Orchadian* | | 533 |
| Awards Nos 364 to 372 | | 571 |
| Shows and Events 2020 | | 574 |
| Directory of ANOS Groups | | 575 |


## Articles


| | | |
|---|---|---|
| Approaches to Judging Australian and Australasian *Aeridinae* | Sheryl Lawson | 534 |
| Growing Hard-Cane Dendrobiums in Sub-Tropical South-East Queensland | Robert Reitano | 544 |
| Cool-Growing Australian Orchid Hybrids – Where have we come from. | David Cannon | 552 |
| *Dendrobium niueense* – A New Species from Niue | Paul Ormerod | 559 |
| Ira Butler Committee Trophies for 2019 | Roslyn Capell | 562 |
| *Geodorum densiflorum* (Lam.) Schltr | Pam Porteus | 569 |


**If you are paying yearly your annual subscription is now due.**

An optional two year subscription to *The Orchadian* is strongly encouraged. Please consider its convenience for yourself and increased efficiency for both Membership Secretary and Treasurer.

### ANOS Inc. Membership

Personal membership is achieved by a subscription to *The Orchadian*. Members receive four issues a year and have full voting rights at the AGM.

### Copyright


Material in *The Orchadian* is subject to copyright and may not be reproduced without express written permission of ANOS Inc.


### Submission of Articles

Items for consideration for publication should be submitted on disk or via e-mail to the editor, formatted for MS Word (DOC, DOCX, RTF). Images must be provided as separate files.

Please include your contact information for communication and publication.

Editorial Guidelines, including instructions for authors, are available on the ANOS website.


*The Orchadian* is printed by Immij Pty Ltd, Mount Waverley Victoria 3149


### Subscription Rates (in $AU)

1/7/20 - 30/6/21

| | |
|---|---|
| **Australia** | **$55** |
| **New Zealand** | **$65** |
| **Asia/Pacific** | **$70** |
| **Rest of World** | **$80** |

Subs will be due from 1 July 2020

### Advertising Costs per Four Issues, June - March

| | |
|---|---|
| 1/6 page | $120 |
| 1/4 page | $160 |
| 1/2 page | $300 |

Please contact the Treasurer for further info.
PO Box 393 Officer VIC 3809
or via www.anos.org.au

**Council of ANOS Inc.**

**President** Peter Adams
**Vice-President** Warren Wilcox
**Secretary** Roslyn Capell
**Treasurer** David Brewster
**Past President** Sheryl Lawson

**ANOS Councillors**
Barry Dudman
Callyn Farrell
Malcolm McGowan

**National Registrar of Judges**
Mike Fish

**Regional Registrars**
Queensland David James
New South Wales Gerry Smee
Victoria Jennie Wilson

**ANOS Correspondence**
ANOS Inc., PO Box 393
Officer VIC 3809

**Editor of *The Orchadian***
Peter Adams, pbadams45@gmail.com

**Editorial Associates**
Kevin Thiele, Western Australia
Matt Renner, New South Wales
Mark Wapstra, Tasmania
Roslyn Capell, New South Wales
Warren Wilcox, Queensland
Sheryl Lawson, Victoria

**Membership Officer**
David James, membershipofficer@anos.org.au

**Conservation Officer**
Geoff Curry

**Webmasters**
Callyn Farrell and Malcolm McGowan

**NOTICE OF POSTPONEMENT OF ANNUAL GENERAL MEETING OF ANOS INC. FOR 2020**

Due to the Covid-19 pandemic and ongoing societal restrictions, the annual general meeting for 2020 has been postponed to a time and place to be determined, as soon as this is possible. Members will be notified when the meeting is rescheduled.

# Editorial

There is an important new listing in *The Orchadian* of people who have agreed to assist the editor as Editorial Associates, in proving various assistance, providing of contributions, reviewing and producing issues. Some have been involved in these tasks for some time and are now acknowledged. For some years in the past, there was a system of Editorial Associates that worked well, and there is now such a work load that a group is required to maintain the standard and meet deadlines. I thank all of the people listed for their service to ANOS members.

*The Orchadian* is the main avenue for ANOS Inc. to promote appreciation, culture, judging, propagation and breeding of Australian and Australasian orchids; and to encourage conservation of orchid habitat and species. The range of topics at the 9th ANOS Conference and Show covered all of these interest areas. The presenters agreed to expand their contributions for *The Orchadian*. In this issue there is something for growers of orchids preferring cool and warm conditions, and for those interested in breeding, judging and exhibiting.

Robert Reitano focusses on the cultural methods required to successfully grow *Dendrobium* section *Spatulata*, *Phalaenanthe* and *Latouria* in south-east Queensland, south of their natural distribution. David Cannon has extended his presentation on the history of breeding cool-growing Australian epiphytes from the very beginning to the present.

Ros Capell has contributed a commentary on the 2019 Ira Butler awards and some insights into their breeding influences. Paul Ormerod describes a new *Dendrobium* species in section *Grastidium*, a large group of species which may not be familiar to many readers. Pam Porteus reviews a fascinating terrestrial species, *Geodorum densiflorum*, which can appear in suburban gardens in its distribution range. It was an early coloniser of new gardens planted at a hospital in Cairns a few years ago. Sheryl Lawson has reviewed Australian and Australasian Aeridinae and offers ideas and comments on how judging may be advanced with the emergence of new hybrid styles. There are a considerable number of ANOS awards in this issue, illustrating a wide range of plants, mainly from the last wave of flowering.

**Correction**

I noticed on 8th June, that in the last issue, March 2020, the title of the paper by Paul Ormerod, *Dendrobium* x *nitidum*- an earlier name for *Dendrobium* x *gracillimum* p. 512, was inadvertently left out of the Contents page. The paper will be included in a revised page so that it is included in future indexing. My sincere apologies to Paul.

*Peter Adams*

## President's Report

There is a very important development being investigated to meet longstanding and increasingly frequent requests that ANOS Inc. makes the content of *The Orchadian* more available to members and the wider community, as it is difficult for most people to source earlier issues. The technology now available for complex indexing will make particular plants and subject information much easier to locate than previously, so we can meet a key ANOS objective in making all aspects of Australian orchid activity available to all who are interested. There are copyright issues involved and Council has engaged appropriate specialist legal advice to ensure that we meet legal and other requirements, and have agreement with contributors and ANOS Inc. regarding authority to reproduce material from *The Orchadian*.

Information and reasons for the above plans are outlined on page 533 and there is an agreement form for contributors, past and present to complete and send back to ANOS Inc as soon as you can. Please take time to read this page, and if you require more information, you can choose to contact one of the ANOS Council executive members.

The Covid-19 pandemic is dominating the lives of most Australians, including the ANOS community. Many events, meetings and activities have of necessity been cancelled or postponed, with no clear changes in sight or easily predictable. As has been the situation for many organisations, it has been imperative for the ANOS Inc. executive in conjunction with the National Registrar of Judges to advise that until further notice all official ANOS judging activities be suspended. There has been continuing orchid activity in posting photographs and comments in various internet forums. Some groups are conducting meetings with presentations via the internet and they are achieving some of the goals to remain connected. When the crisis is over, groups may consider some continuing internet activity as a means to reaching a wider audience and increasing the effective attendance.

As per the constitution the Annual General Meeting is a face-to face event, and cannot be scheduled at this time of so many uncertainties. It has been postponed to a date and venue to be announced as soon as possible.

Congratulations to Richard (Dick) Thomson OAM who received a Queen's Birthday Honour for service to the conservation of Australian native orchids, announced on 8th June 2020. He has worked voluntarily and tirelessly for many years in terrestrial orchid conservation activities, both in the field and in the laboratory, making a major contribution in Victoria.

A lot of growers faced with long periods at home with restricted interactions or in isolation have taken the opportunity to spend more time in their orchid collections. The generally good autumn weather has allowed a continuation of repotting, potting on, tidying and tending to plants with more careful observation. Hopefully this will produce positive results in the coming flowering seasons.

ANOS groups will look at more ways of promoting interactions between members to foster the goals of growing and appreciating Australian orchids. Some shows and events will not be held this year, but some limited face-to-face interactions in collections, subject to prevailing restrictions are likely to occur in the open air where health risks are diminished.

Please check whether your subscription is due to be paid. We greatly appreciate a wave of prompt payments to reduce the work for our volunteers.

Keep active and safe over the next few months, and for as long as it takes.

*Peter Adams*

## Copyright and *The Orchadian*

If you have contributed an aticle at any time to *The Orchadian*, please read the following, copy the licence agreement form, and email to copyright@anos.org.au, *or* post a copy of the completed form to The Secretary, ANOS Inc. P.O. Box 393 Officer Vic 3809.

*The Orchadian* is a nationally important historical journal relating to Australian orchids, with information vital to orchid enthusiasts, conservationists, researchers and historians. It contains key research articles and distributional, ecological, hybridisation and taxonomic information which are not readily available to growers, organisations and scientists. There have been repeated requests from ANOS Inc. members and others for ANOS Inc to make the contents of *The Orchadian* available on-line. This can promote the objectives of the society, especially to growers of Australian orchids, as well as judges and trainees, contributors to *The Orchadian*, and other writers, people and institutions involved in research and conservation. Many past issues going back to the foundation in 1963 are not readily available.

ANOS Inc. has obtained and is following legal advice on copyright issues. Consequently, ANOS Inc. is now seeking formal confirmation from contributors to *The Orchadian*, both past and future, regarding authority for *The Orchadian* content to be released more broadly in line with the objectives set out above.

If you have any queries about this process, please contact any member of the ANOS executive, whose contact details can be found on anos.org.au.

### LICENCE AGREEMENT

In consideration of Australasian Native Orchid Society Inc. Y1079133 (**ANOS**) agreeing to publish the literary, artistic (including photographic) and other works specified in the table below (the **Works**), the Licensor named in the table below hereby (in his or her own right and on behalf of any joint author/owner):

(a) warrants that the Licensor owns all intellectual property rights in the Works or is otherwise entitled to grant the licence in (b) below without infringing the intellectual property rights of any other person;

(b) grants to ANOS an irrevocable, royalty-free, perpetual, non-exclusive, world-wide licence to use, reproduce, modify and sublicence the Works (or any of them) as and when ANOS sees fit, including without limitation, to publish in *The Orchadian* or on the ANOS website (or a website of a group associated with ANOS), or to authorise a third party to publish the Works, in digital form or otherwise; and

(c) consents to ANOS and any sublicensee of ANOS engaging in conduct which may be contrary to the moral rights of the Licensor in respect of the Works (or any of them) including, without limitation, altering, amending, deleting or modifying the Works (or any of them).

Nothing in this document affects any express or implied licence that the Licensor may have already granted to ANOS

| | |
|---|---|
| **Licensor** | Name:<br>Address: |
| the **Works** | All literary, artistic (including photographic) and other works I have provided to ANOS at any time for publication in *The Orchadian* or otherwise. |

**Executed as a deed poll:**

..... .....

Signature of the Licensor Date

# Approaches to Judging Australian and Australasian *Aeridinae*

Text by Sheryl Lawson
sheryldlawson@gmail.com

**Summary**

The ANOS Judging Handbook is the basis for judging but is of necessity relatively brief. This paper reflects on approaches to judging *Aeridinae*, covering species and hybrids with extended comments on the labellum. Establishing benchmarks for major species is a worthy goal and will promote appreciation and encourage breeders to provide propagated plants. Judging standards continue to evolve with the emergence of new hybrid styles and ongoing training of judges to maintain consistency and standards is vital.

**Introductory Comments**

As breeders produce new and advanced *Aeridinae* hybrids at a rapid rate, discussion of judging approaches is timely. The current judging system and framework ensures ANOS Inc. meet its obligations under the constitution, which states in part:

- to establish and maintain standards for the judging of Australian and Australasian native orchids species and hybrids, and to train judges to apply these standards; and
- to establish and maintain awards for Australian and Australasian native orchids.

The final authority for judging is the Australasian Native Orchid Society Inc. Judging Handbook 8th Edition, Version 8.10 September 2018. The wider comments here are my own opinion and do not represent official ANOS policy.

The handbook contains guidelines for using a points system (100 points, divided into parts) for Australian and Australasian orchids, except for terrestrial orchids which are judged by appreciation. The ANOS judging system allocates a healthy 15 points for floriferousness, recognising that many Australian and Australasian orchids have relatively small but numerous flowers per raceme. Some would argue that points for floriferousness could be even higher. Judging is an art rather than a science, with inherent subjectivity, and therefore judges will not always award the same points, but with intensive training consistency can be significantly improved. Knowledge of species and their influence is critical. This is why judging panels of at least five people are required to provide the most reproducible results. In recent years ANOS Inc. has successfully expanded the number of judges across the eastern states to provide increased services to growers for them to access accredited judging for their shows and plants.

Judging is a professional task that at its best encourages breeders and growers in their activities and adds to their enjoyment of the plants, as well as providing enjoyment to others. For judges it provides opportunities for learning and appreciation of orchids, as well as being a team and social activity. For breeders, it may influence the direction of their breeding program, including propagation and distribution of species orchids. For the wider community it provides education and by promoting knowledge and appreciation of species may encourage people to become more involved in conservation activities.

**What is *Aeridinae*?**

*Aeridinae* is a subtribe of Tribe Vandeae characterised by monopodial plants with two or four pollinia, usually a single stipe and one viscidium, mainly found in Asian and Australia. It was formerly known as *Sarcanthineae*, proposed by Bentham (1881) but this was shown to be an illegitimate name, and the next available subtribal name is *Aeridinae* Pfitzer (1887) based on the genus *Aerides*, with the type species *Aerides odoratum*. *Sarcanthineae* was used for a long time in Australia.

*Aeridinae* contains 83 genera and around 1550 species from India, Japan, Southeast Asia, the Pacific, Australia, New Zealand, Africa and Madagascar (Pridgeon et al 2014). There are around 20 Australian and Australasian species, and many are quite small plants with small flowers. Genera include *Sarcochilus*, *Plectorrhiza*, *Saccolabiopsis*, *Phalaenopsis* and five monotypic genera – *Rhinerrhiza*,

*Peristeranthus*, *Schistotylus*, *Mobilabium* and *Papillilabium*. Some species are rarely seen or grown, and not all have been used in hybridisation, which may be due to rarity, miniature size of flowers and plants, or very short flowering life. There is a wide range of unusual flower shapes and colours in Australian Aeridinae and high interest in growing and breeding with this group in recent years, with many new attractive and unusual hybrids available. Judges are challenged to keep up with emerging trends which will inevitably alter the benchmarks for hybrids and line-bred species over time. Benchmarks in judging are not static and must be subject to ongoing revision, as a study of awards over time makes obvious. This does not mean we change our points system, but rather appreciate that advances in hybrids will extend and raise the benchmark standards.

**What To Look For When Judging *Aeridinae***

When judging species, strong consideration must be given to the known range of plant characteristics, particularly flower shape and flower count. These features are available in references and online sources. I consider that non-classic hybrids, close in background to their parent species (particularly primary hybrids) should be judged according to what can be considered as the best results using those background species up until they can be regarded as complex hybrids after several generations. Some hybrids are created which fit neither classic (based on round, circular flowers in the style of *S. hartmannii*) or non-classic shapes but are intermediate. Many show schedules judge *Sarcochilus* hybrids based on colour categories, which may risk non-classic hybrids being less competitive. The showbenches have been strongly influenced by the ready availability of highly coloured hybrids based on *S. hartmannii* and *S. fitzgeraldii* produced by Barrita Orchids, which are being awarded in other systems. My comments below are by no means exhaustive or cover all species and hybrids, which would require a very much larger discussion.

Substance and Texture (10 points)

*Sarcochilus hartmannii* is the species with the most advanced line breeding. As the texture and substance becomes increasingly greater, problems can occur with distortions of tepals, in particular folds and ridging, and edges which may be irregular or fluted, which is unattractive, so do not be over-impressed by size and texture and ignore these features. *Sarcochilus fitzgeraldii* has no ANOS quality awards. The species has a different shape – less filled in tepals which are often club-shaped and with thinner flower substance than *S. hartmannii*, and flowers generally do not present as well. The species has quite variable flowers (Upton 1992) and a knowledge of the range is essential. Are judges unconsciously using *S. hartmannii* as their standard when judging *S. fitzgeraldii*, rather than judging the species against itself? Selective line breeding of both species appears to have slowed, and fewer are exhibited than in the past.

Hybrids with a strong influence of *S. hirticalcar* e.g. *S.* Velvet and its progeny, will have very thick tepals, increasing their points in this section. An appreciation of the characteristics each species brings to hybrids is critical in judging.

Colour and Attractiveness (20 points)

Many hybrids have *S. fitzgeraldii* in their background. The bush collected plant 'Lorraine' in particular passes the trait of inconsistent flowering colour through its progeny for several generations. There are probably also other factors also involved in this phenomenon, such as time of year of flowering, temperature and age of flower. When colour is variable, consider whether the irregularity is too marked, or creates an effect which is not pleasing or is too dominating, and this is when a points penalty is appropriate. Judges have some disagreements about how much plants should be penalised, as this is a very subjective issue. Flowers will often show some irregularity of patterning between flowers, and it occurs in other genera such as *Oncidinae*, however excessive colour variation generally will be penalised.

With advanced complex breeding new colour combinations continue to emerge. Judges must determine whether they are pleasing and attractive, and whether the colours are clear, distinct and vibrant. New colours and colour combinations can be considered for an Award

*Sarcochilus hartmannii* 'Mt. Molloy'. A typical plant of the species with central red-purple stripes and neat and small central labellum with colour on the midlobe and yellow spots on the labellum. Photo P. Adams

*Sarcochilus hirticalcar*. Note the long projecting labellum, which dominates the flower, as well as the central red-brown markings and thick texture. Photo P. Adams

*Sarcochilus falcatus* 'Mt. Sugarloaf'. This species can have varying degrees of yellow and purple pigments on the labellum and midlobe. This is a highly coloured form. Photo P. Adams

*Sarcochilus fitzgeraldii* 'Mottled'. Photo D. Butler

of Distinction. A clear, crisp, pure white remains highly desirable and can achieve high points in this section.

Shape (25 points)

Shape is allocated the most points in the ANOS judging system. The shape for classic hybrids is based on *S. hartmannii*, with the expectation of large and filled-in flowers with a circular outline. When twig epiphytes such as *S. spathulatus S. hirticalcar* and *S. dilatatus* are in the background breeding, the larger and more prominent labellum creates a different overall effect to the smaller labellum of *S. hartmannii* and *S. fitzgeraldii*. The balance of the flower overall should be carefully considered.

Non-classic hybrids show the dominance of species which have relatively small flowers - those plants we often refer to as twig epiphytes which are zygomorphic but may have a much more dominant labellum, and subjectivity becomes more problematic in judging. These plants usually have a minimum of 25%, or more commonly 50%, of background miniature epiphytes. Plants may be smaller and slower growing with pendulous or arched racemes. There is a wide range of colours and colour combination dependent on the hybrid background. Are the flower shapes pleasing and balanced? There is no penalty for not having a classic shape unless a classic shape is expected from the breeding. As breeding advances, some more complex hybrids may emerge which do not fit easily into either of these categories.

Size of flowers (15 points)

For species, the range of size is available in descriptions and should be checked prior to allocating points. The size of hybrid flowers depends primarily on the background species composition. Knowledge of parentage usually enables a good assessment to be made.

Floriferousness (15 points)

The maturity of the plant, and number of racemes and flowers that may be expected knowing the species or the background of the hybrid, must be considered. At what point does a seedling meet the criteria for award judging? Some *Aeridinae* hybrids will flower in the flask or shortly afterwards. Should they be eligible for a quality award at that point? This is not currently specified and relies on common sense. As a guide, I suggest that the plant should have developed to a sufficient stage that it has moved beyond a young seedling and has the relevant number of racemes expected from its background to meet the standards for floriferousness. First flowering seedlings indicate potential, but usually need to be further grown to meet award standards.

Our standard show schedules recognize quality flowering seedlings in their own category, and quality awards should be considered for mature plants only. This should be determined carefully by the judging group. First flowering results are an indication of future potential, and I have had both surprises and disappointments on subsequent flowering, as others have noted.

Progressive flowering means that only a few flowers on a raceme are open at once. How many flowers should be expected to be open depends on knowledge of the species or the hybrid composition. Should hybrids with progressive flowering only be considered for a quality award if the first flower on the raceme is still fresh? The first flowers on the raceme are the largest. There should be sufficient flowers to provide an attractive display in progressive flowering plants for them to be considered for a quality award, whatever the outstanding features of an individual flower. Complex hybrids that are too progressive in their flowering and do not give an adequate floral display will not obtain enough points for an award. They may be regarded as stepping stones in future hybridisation developments.

Habit of Inflorescence (15 points)

The handbook states no staking of racemes is allowed, only the vegetative part of the plant may be staked. Most *Aeridinae* have arching or pendulous racemes. In hybrids, clear presentation of the flowers outside the foliage (which may require reasonably long peduncles) is a feature that is rewarded. Irregular spacing of flowers and irregular opening on the raceme can be a problem with hybrids made with *S. australis* and *Rhinerrhiza divitiflora* in particular, and this will lose points, however

*S. australis* hybrids can present all of their flowers in one plane, which is an attractive feature. Bunching of flowers at the end of an overlong peduncle is a feature to be penalised, as it will not allow individual flowers to be well presented.

Staking of racemes can create an unnatural appearance and hide poor features of a hybrid such as flowers being within the foliage. Stakes must be removed from racemes before plants can be considered for award judging. If racemes have been staked early in their development, when they are removed the flower positions often appear unnaturally and irregularly aligned, so it is not in the grower's interest to stake unless it is temporary and to protect racemes for transport.

**Evaluating the Labellum When Judging**

In Australian *Aeridinae* there is much variation in the relative proportions of tepals and labellum. Some species have distinctively shaped or coloured labellums that strongly influence and even dominate the overall appearance of hybrid flowers. *Rhinerrhiza divitiflora* has a relatively small labellum for its overall size, and the dominant flower feature is the long, narrow and tapering tepals. *Sarcochilus hartmannii* and *S. fitzgeraldii,* the two dominant species in many complex hybrids, both have a relatively small labellum compared to the size of the flower. *Sarcochilus falcatus* has a relatively large labellum with prominent wide side lobes and may be highly coloured. *Sarcochilus hirticalcar*, the most significant of the smaller epiphytes in hybridising, has a prominent, large, forward-projecting labellum which is instantly recognisable and passes through to hybrids. *Sarcochilus dilatatus* and *S. australis* also have a relatively large and prominent labellum. The labellums of these species can often be detected in complex hybrids that contain the species in relatively low amounts. Other smaller species also have unique and recognisable labellar shapes, often with attractive coloured banding or spots which create visual interest in their hybrids.

A key breeding focus in recent years has been to introduce the smaller epiphytes into hybrid breeding lines and experiment with intensifying colour and introduce new colour to the tepals. This has been highly successful. What happens to the labellum has generally not been a major consideration, however the shape and colour of the labellum of smaller species has a significant effect on overall appearance, and a coloured or dominant labellum is very important in the assessment of the overall quality of the flower, providing balance and in some cases may be the striking feature, enhancing the overall attractiveness of the flower. If focus is on excessively highly coloured tepals, this can distract judges from accurately assessing overall flower quality.

**Comments on Some ANOS Awards**

Of the 68 *Aeridinae* awards given, 19 could be identified clearly as non-classic plants. The examples given below discuss the features of some awarded plants with classic, non-classic and intermediate forms.

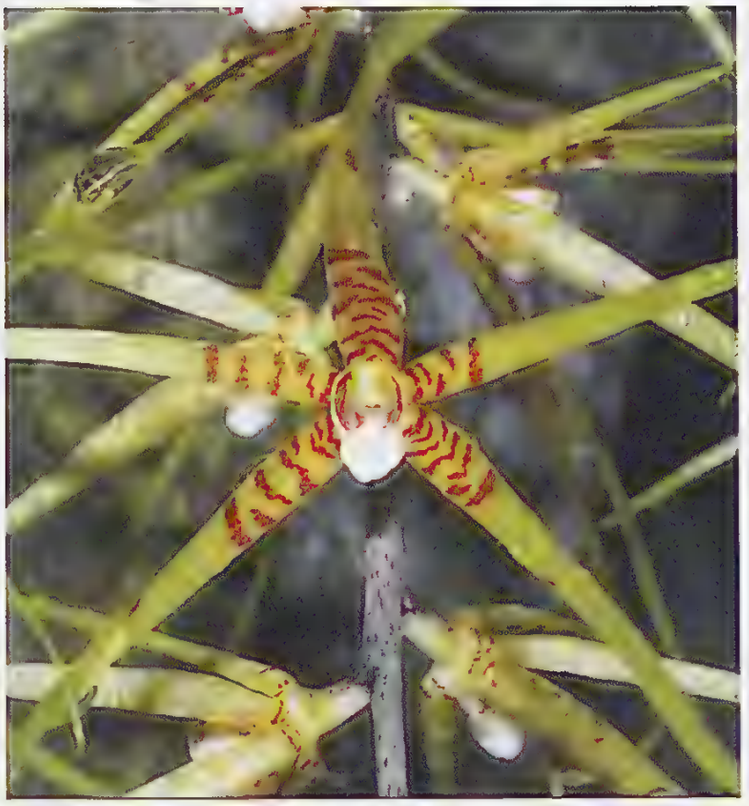
*Sarcochilus* Burgundy on Ice 'Classic' AM/ ANOS 2011 (NSW)

This classic-style cross was registered by Florafest and the plant grown by David Butler. The cross is the quintessential classic hybrid with background 50% *S. hartmannii*, 37.5% *S. fitzgeraldii* and 12.5% *S. falcatus*, and the cross has won numerous quality awards from various panels because of its filled in flower parts, circular outline and size of flower (this flower being 27 mm wide and 32 mm tall). The flowers are attractively coloured with blotches of purple on a white background. There are red stripes in the centre, and red markings on the compact midlobe. There is good floriferousness with 64 flowers on 4 pendulous racemes, all presenting well.

*Sarcochilus* Bessie 'Nice 2012' HCC/ANOS 2016 (NSW)

Registered by Neville Roper and grown by David Butler, this classic hybrid has heavy texture and meaty rounded segments. This particular awarded plant has a significant gap at the bottom of the flower, as well as being much smaller than a typical classic. There are 63 flowers and buds on five inflorescences. The flower has a white background and red centre with a dominant highly coloured labellum reflecting

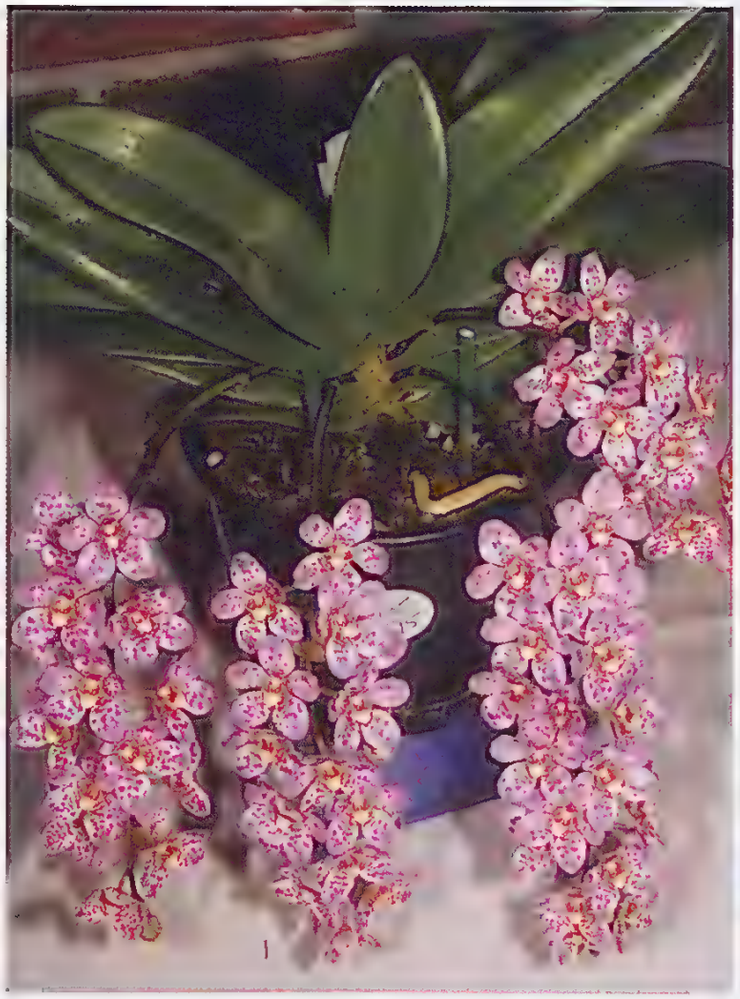
*Sarcochilus olivaceus*. Photo P. Adams



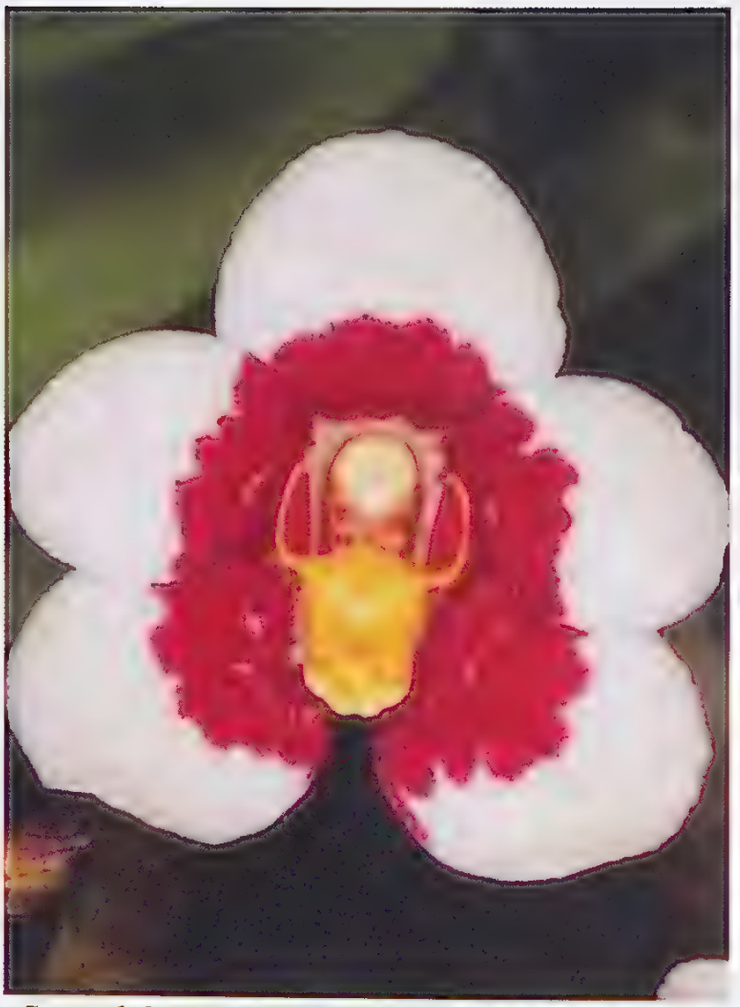
*Rhinerrhiza divitiflora*. Photo G. Corbin

*Sarcochilus australis*, north-west Tasmania. Photo P. Adams

*Sarcochilus* Burgundy On Ice AM/ANOS 2011 (NSW)



*Sarcochilus* Burgundy On Ice AM/ANOS 2011 (NSW)



*Sarcochilus* Bessie 'Nice 2012' HCC/ANOS 2016 (NSW). Photo B. Dobson

*Sarcochilus* You Beauty 'Dellys' HCC/ANOS 2019 (NSW). Photo B. Dobson

*Sarcochilus* You Beauty 'Dellys' HCC/ANOS 2019 (NSW). Photo B. Dobson

its background breeding of 50% *S. hartmannii*, 25% *S. hirticalcar*, 12.5% *S. falcatus* and 12.5% *S. fitzgeraldii*.

*Sarcochilus* You Beauty 'Dellys' HCC/ANOS 2019 (NSW)

This hybrid bred by DUNO and grown by John Douglas has the background species breeding of 50% *S. falcatus*, 31.3% *S. hartmannii*, 12.5% *S. hirticalcar* and 6.3% *S. ceciliae*. The complex mix has produced an interesting result. There are 52 flowers and buds on four inflorescences. Flower size is 25 mm width and 26 mm height (being not much smaller than line-bred *S. hartmannii*) with attractive purple markings and rounded segments, but certainly not a filled in flower, and not fitting comfortably with either classic or non-classic style.

*Sarcochilus* Olive Nymph 'Mulberries' HCC/ ANOS 2019 (VIC)

Grown and bred by Peter and Sheryl Adams, this non-classic hybrid has background species breeding of 50% *S. australis*, and 25% each of *S. hartmannii* and *S. falcatus*. The beautifully coloured flowers with club-shaped tepals have ripples of purple and central red-brown stripes, with striping on the midlobe. There were 40 flowers and buds on three inflorescences on a single lead. The flowers and plant habit are dominated by *S. australis*.

*Plectochilus* Harlequin 'Moonlight' HCC/ ANOS 2013 NSW

An intergeneric non-classic hybrid grown and bred by David Butler has background species breeding of 75% *S. hartmannii* and 25% *Plectorrhiza tridentata*. *Plectorrhiza tridentata* is a small cool growing epiphyte with the colour range in the tepals from dark green to pale purple. It introduces these colours to the progeny. As well, the tepals are narrow with a relatively wide spreading labellum. This seedling retains the miniature form in both plant and flower characteristics with attractive extensive brown-orange markings on the tepals, the shape is filled in and the narrow labellum has attractive yellow and orange banding. There are 29 flowers on four inflorescences with a pendulous habit. It is clearly a non-classic hybrid in background and appearance.

*Rhinochilus* Colonial Zeal 'Surprize' ACC/ ANOS 2000

A second-generation intergeneric non-classic hybrid exhibited 180 flowers and buds on ten pendulous inflorescences. The background breeding is 62.5% *S. hartmannii*. 25% *Rhinerrhiza divitiflora* and 12.5% *S. fitzgeraldii*. The *Rhinerrhiza* influence has narrowed the flower segments and enlarged the flowers (30 x 30 mm), which have red-brown central markings, streaked red-brown markings on the midlobe and yellow spotting on the labellum. Overall it is a pleasing and balanced flower with a circular outline.

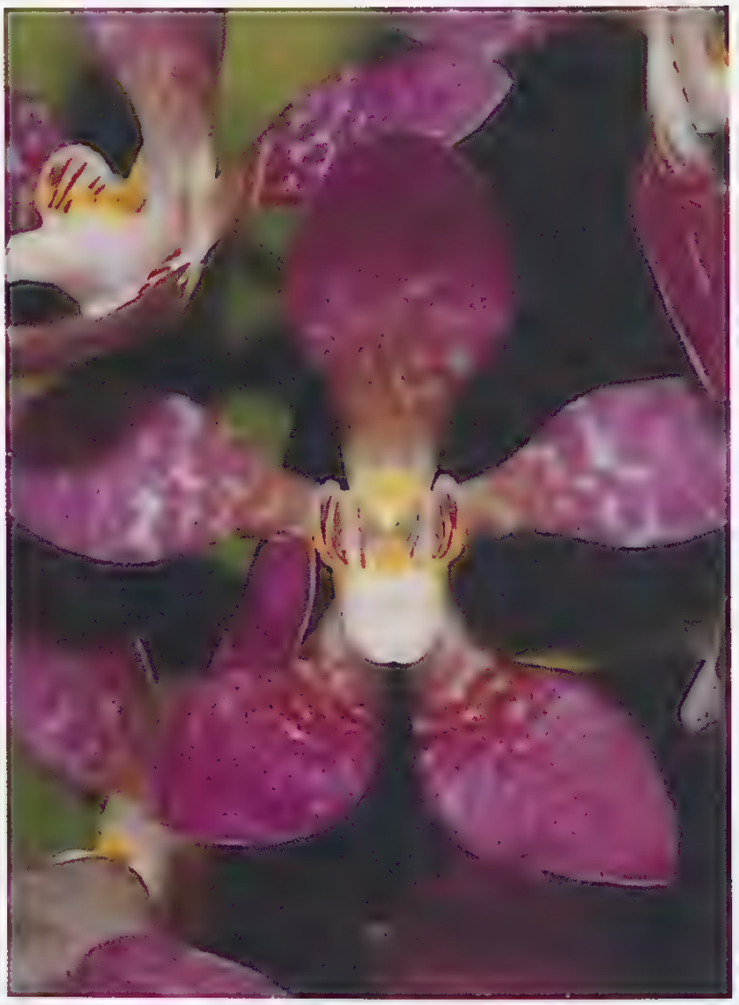
**Benchmarking**

Benchmarking is a term that may be used to refer to the development of standards for species and hybrids using quality awards as the basis.

**Table 1.** ANOS Awards for Australian *Aeridinae* up to February 2020 (68 out of 388 ANOS awards in all)

| | | FCC | AM | HCC | AD | ACC | Totals |
|---|---|---|---|---|---|---|---|
| Species | *Sarcochilus hartmannii* | 0 | 3 | 4 | 1 | 1 | 9 |
| | *Sarcochilus falcatus* | 0 | 1 | 5 | 0 | 3 | 9 |
| | *Sarcochilus fitzgeraldii* | 0 | 0 | 0 | 1 | | 1 |
| | *Sarcochilus dilatatus* | 1 | 0 | 0 | 0 | 1 | 2 |
| | *Sarcochilus olivaceus* | 0 | 0 | 0 | 0 | 1 | 1 |
| | *Sarcochilus ceciliae* | 0 | 0 | 0 | 0 | 1 | 1 |
| | *Plectorrhiza tridentata* | 0 | 0 | 1 | 0 | 3 | 4 |
| | *Phalaenopsis amabilis* var. *rosenstromii* | 0 | 1 | 0 | 0 | 1 | 2 |
| Hybrids | *Sarcochilus* | 0 | 7 | 17 | 11 | 2 | 37 |
| | *Plectochilus* | 0 | 0 | 1 | 1 | 0 | 2 |
| | *Rhinochilus* | 0 | 0 | 0 | 0 | 1 | 1 |
| **Totals** | | **1** | **12** | **28** | **14** | **14** | **69** |

*Sarcochilus* Olive Nymph 'Mulberries' HCC/ANOS 2019 (VIC). Photo P. Adams



*Sarcochilus* Olive Nymph 'Mulberries' HCC/ANOS 2019 (VIC). Photo P. Adams

*Rhinochilus* Colonial Zeal 'Surprise' ACC/ANOS 2000 (NSW). Photo P. Adams

*Sarcochilus* Burgundy On Ice x *Schistotylus purpuratus*. An unregistered hybrid using a monotypic miniature species, which has the predominant influence on plant size and flower shape. Photo P. Adams

If we have no quality awards for particular species, I consider that we should be more active in thinking about awards for those species so that benchmarks can be established over time. Benchmarking provides opportunities for students and judges to appreciate the quality and range of species and showcases species to growers and wider audiences.

Why are there so few ANOS awards for *Aeridinae* species? The reasons are multifactorial. Systemic problems may include the past shortage of enough judges to service shows, and plants not being exhibited at ANOS shows and meetings. Some species are difficult to grow and maintain well in cultivation so are not being benched. Some species and hybrids flower over the summer period where there are less opportunities to have plants awarded and some species have short-lived flowers. There may have been a reluctance of some judges to consider small growing species for quality awards, but this is increasingly less so.

As with all ANOS judging, the best assessment of exhibits requires ongoing and advanced training beyond general principles. A knowledge of species with their characteristics and variation and their emerging influences on hybrid progeny will promote consistent judging, as well as better appreciation of these beautiful orchids.

## References


Pridgeon AM, Cribb PJ, Chase MW and Rasmussen FN (eds). 2014 *Genera Orchidacearum Volume 6: Epidendroideae (Part 3)*. Oxford University Press, United Kingdom.

Upton WT 1992 *Sarcochilus orchids of Australia*. 'Double U' Orchids, West Gosford, New South Wales.

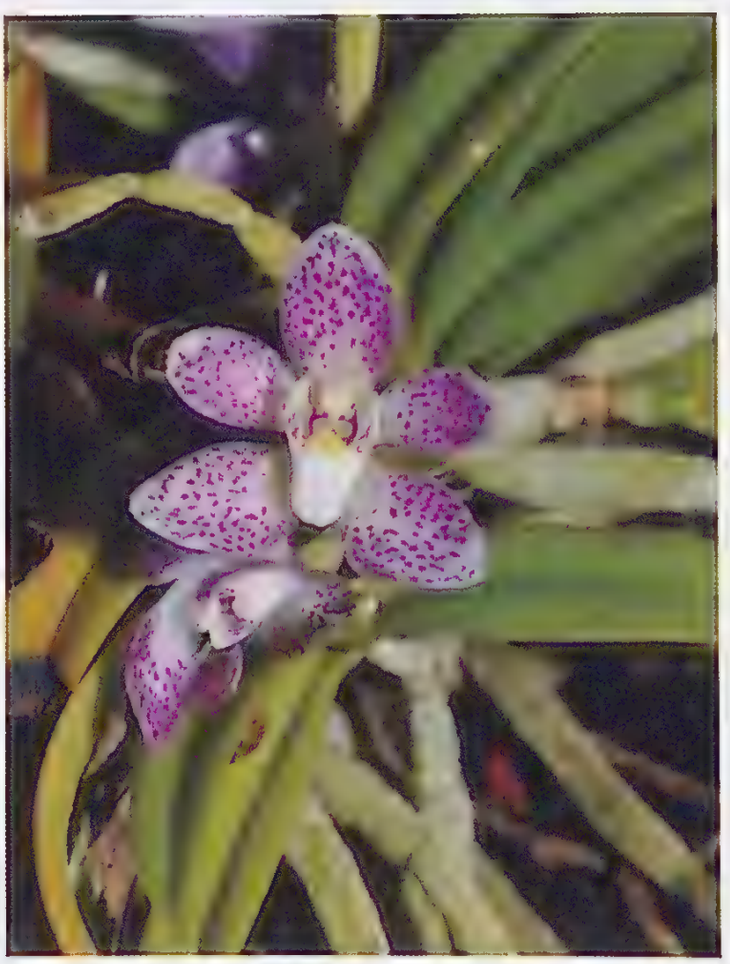
Australasian Native Orchid Society Inc. Judging Handbook 8th Edition, Version 8.10 September 2018. anos.org.au/judging.



*Sheryl Lawson is Past President of ANOS Inc. and an ANOS and Australian Orchid Council judge.*


*This article is an expanded version of a presentation to the 2019 ANOS Conference at Strathpine.*

*Plectochilus* Harlequin 'Moonlight' HCC/ANOS 2013 (NSW)



*Plectochilus* Minirose (*Sarcochilus ceciliae* x *Plectorrhiza erecta*). The *Plectorrhiza* species has dominant influence on plant size and flower shape. Photo P. Adams

# Growing Hard-Cane Dendrobiums in Sub-Tropical South-East Queensland

Text by Robert Reitano
r_reitano@bigpond.com

**Summary**

The tropical *Dendrobium* species in sections *Phalaenanthe*, *Spatulata* and *Latouria* can be successfully grown south of their habitat, in south-east Queensland. Cultural methods to achieve thriving plants in this region are presented.

**Introduction**

*Dendrobium* is the largest genus within Australia and the second largest in the world after *Bulbophyllum.*

The main focus of this article is culture of hard-cane dendrobiums in *Dendrobium* sections *Spatulata*, *Phalaenanthe, Latouria,* and the hybrids and inter-sectional hybrids between all three sections in the sub-tropical climate of south-east Queensland. Hard-cane *Dendrobium* are usually sections within *Dendrobium* that do not require losing their leaves to flower on mature pseudobulbs. Hard-cane dendrobiums will flower on both old and new-season pseudobulbs, as long as the latter have matured and hardened up.

**Distribution and Habitat**

The species of these three sections grow along the eastern coastline of Australia associated with the eastern highlands (Great Dividing Range) and extend north, east and west to include habitats in the northern parts of the Northern Territory, Western Australia, and into New Guinea and neighbouring islands of the Pacific and Australasian regions. With this diverse habitat range, the question often asked is how does one grow these sections and their hybrids within one large orchid house in a sub-tropical climate?

With access to reference materials, the requirements can be easily checked for any particular genera; however, the ultimate challenge is in replicating the documented conditions for each of these beauties to survive and reward you with flowers. Despite the plethora of information on the internet, there is a need to be selective with the cultural practices adopted so they are compatible with your location or region.

Dendrobiums in the *Spatulata* and *Phalaenanthe* sections and many from the *Latouria* section thrive in equatorial conditions, where the summers are monsoonal and the winters have lesser rainfall. However, there are some *Latouria* species that are endemic to the highlands of New Guinea and these thrive in somewhat cooler environments with increased moisture from daily cloud and mists.

Australasian orchid species grow in eight main habitats (B. Gray pers. comm.):

Lowland rainforest - lush vegetation and high constant rainfall e.g. Mossman Gorge in North Queensland.

Montane rainforest and cloud forest - high mists almost every night throughout the year.

Mangrove forest – inundated on the high tides.

Sclerophyll forest - high light *Eucalyptus* forests with grassed areas below.

Open forest.

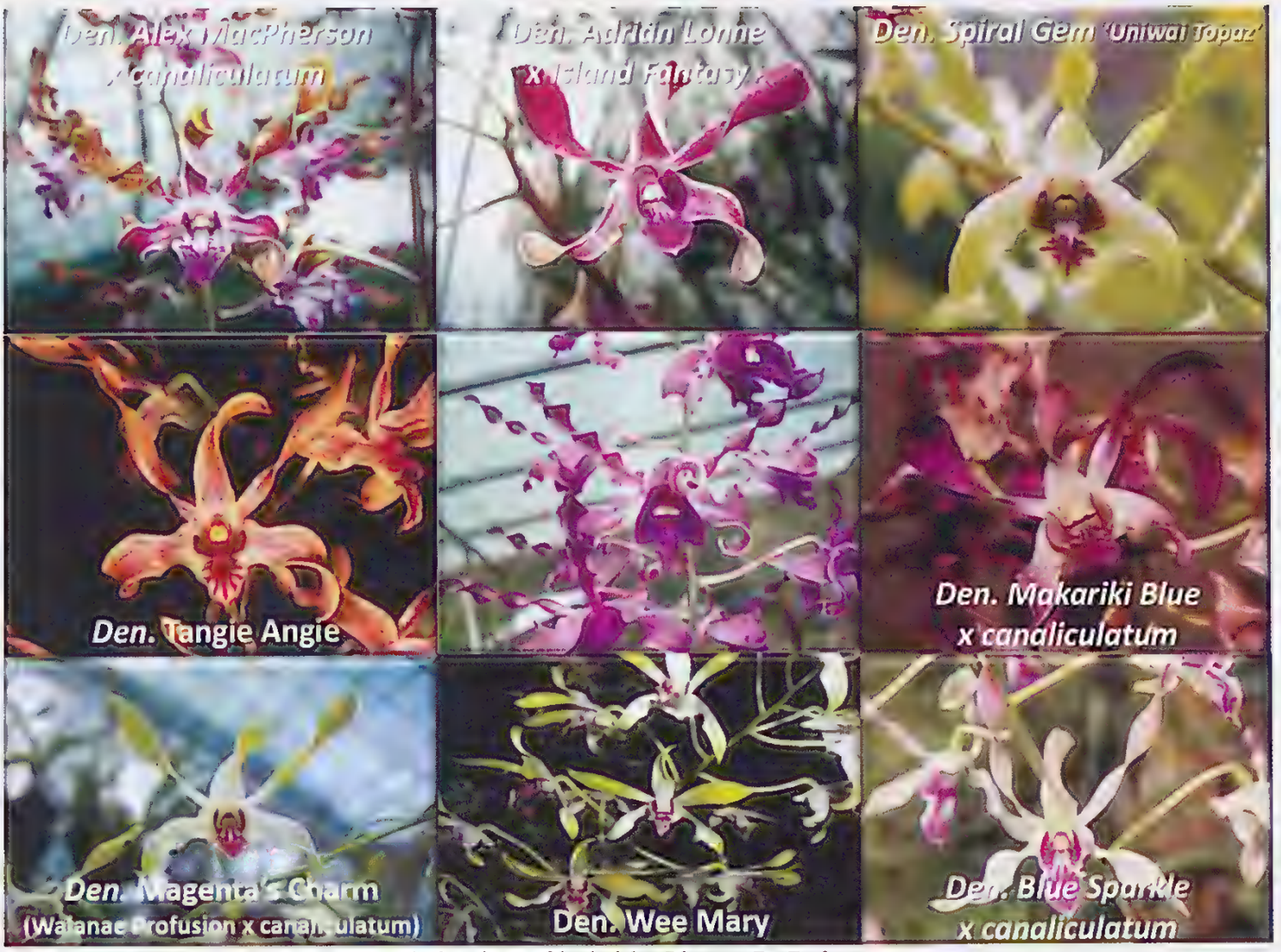
*Melaleuca* woodland - seasonally very wet and seasonally very dry.

Cape York rainforest - quite often these forests drop their leaves in dry times letting bright light through to the understory.

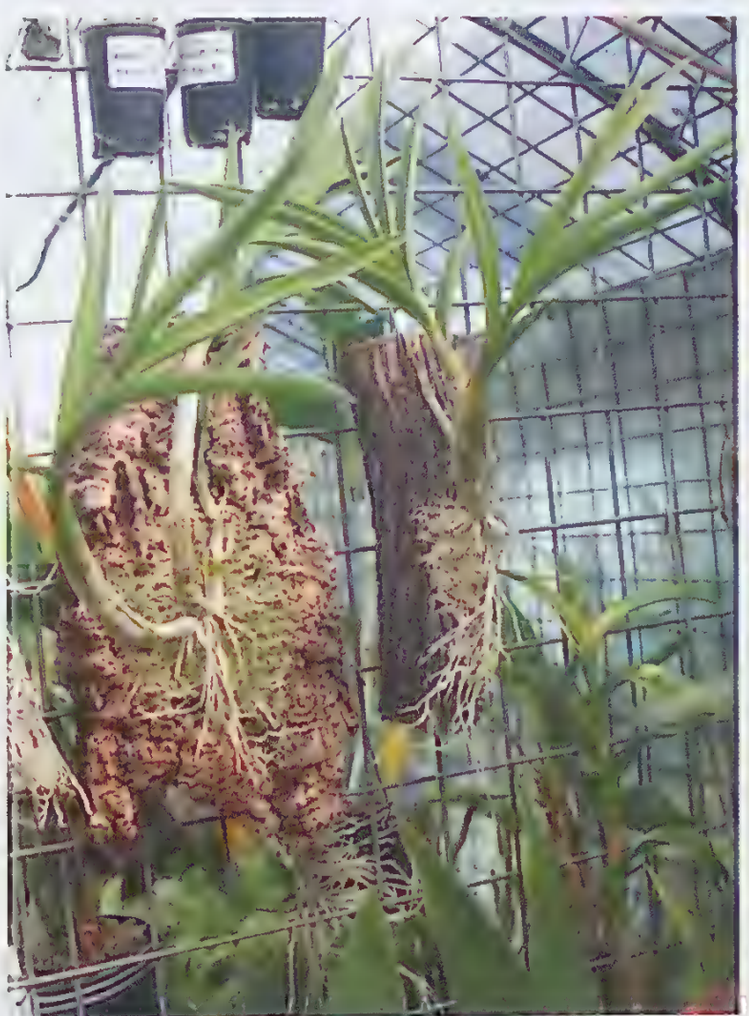
***Dendrobium* Section *Spatulata***

Species range in height from a few centimetres to over two metres. They are naturally found in tropical regions and generally do not have a "rest period"; except for those few species that grow in open forest and *Melaleuca* woodland, which have seasonally very wet summers and seasonally dry winters.

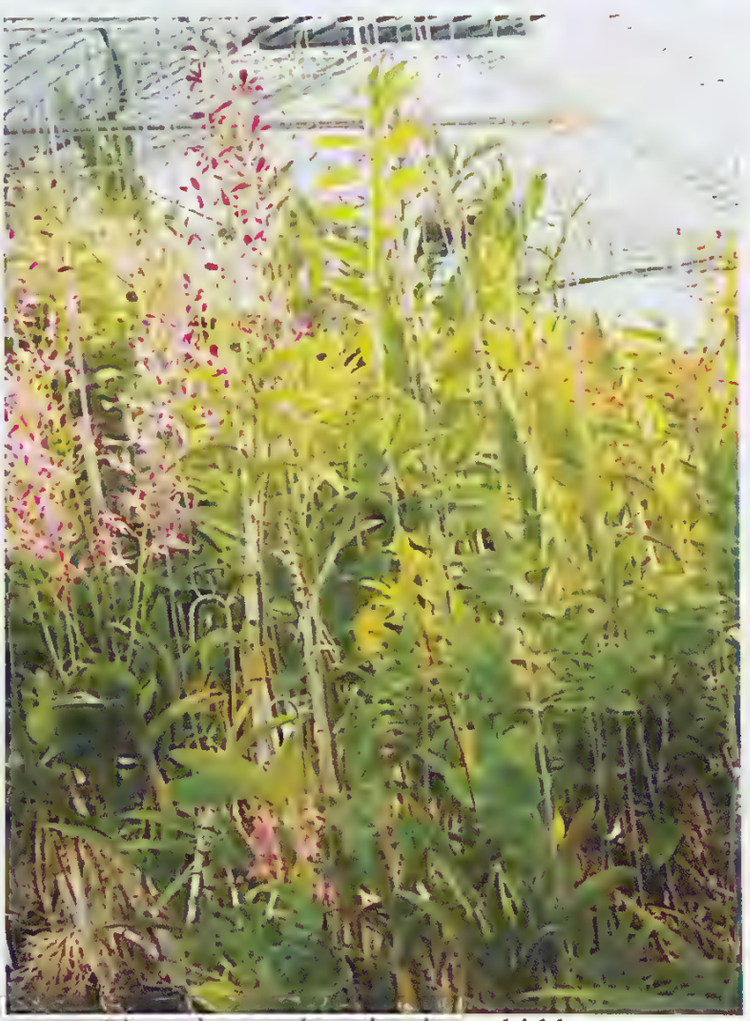
Australasian *Spatulata* dendrobiums grow in only a few of the regions discussed earlier. Mangrove forest species include *D. discolor*, *D. nindii*, *D. mirbelianum* and natural hybrids such as *D.* × Peter Petersen (*discolor* x *nindii*). Species in *Melaleuca* woodland include *D. canaliculatum, D. carronii, D. trilamellatum* and *D. johannis*. Cape York rainforest species include *D. antennatum* and the natural hybrid *D.*




Selection of hybrids. Photos R. Reitano



Mounted plants hanging in orchid house.
Photo R. Reitano



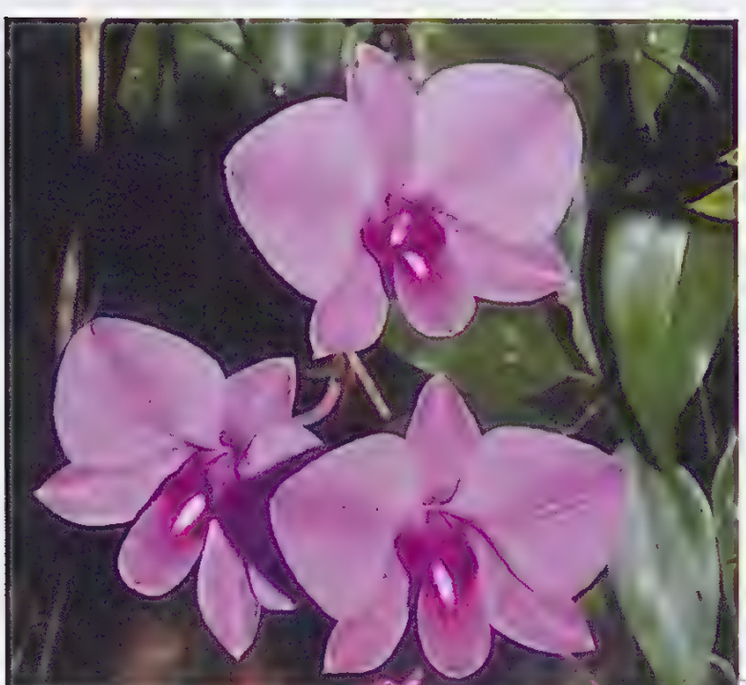
Plants in pots hanging in orchid house.
Photo R. Reitano

*Dendrobium discolor* mounted on treefern trunk. Photo R. Reitano

*Dendrobium affine* Photo P. Adams

*Dendrobium bigibbum* var. *bigibbum* Photo P.Adams

*Dendrobium bigibbum* var. *superbum* Photo P.Adams



*Dendrobium bigibbum* var. *schroederianum* Photo P. Adams

Potting in larger pots. Photo R. Reitano

× Verninha (*discolor* x *antennatum*).

The larger portion of this section grow in New Guinea and surrounding islands, from sea level up to montane regions. This covers mangrove forest, lowland rainforest and montane rainforest where the popular *D. cochliodes, D. gouldii, D. helix, D. lasianthera, D. lineale,* and *D. tangerinum* occur.

The plants are evergreen and can hold their leaves for up to three years provided that air movement and humidity is sufficient and particular cultural practices are followed during the cooler winter months. Light needs to be at least 50% of full sunlight and as they grow in the tropics, ideally temperatures should not go lower than 15ºC. However, they can withstand temperatures down to 5−6ºC for short periods. With many species in this section being tall growers it is sometimes awkward to house or bench plants that are over 2−3m in height. Often it is better to hang these for additional stability. The plants are gross feeders and some growers only use low nitrogen and high potassium fertiliser to control growth height to a manageable size.

Potting is usually done in early spring and squat pots are preferred. Use a pot that will cater for two years' growth and never over-pot. Trim the roots to fit the pot and remove all the dead roots. Some taller plants also respond well when potted into tree-fern stumps when young. Shorter plants can be grown on cork mounts. Impressive hybrids such as *D.* Peter Petersen (*discolor* x *nindii*) put on a rewarding display.

### *Dendrobium* Section *Phalaenanthe*

This section contains a small group of species occurring from the Tanimbar Islands in the north to Timor, southern New Guinea, Torres Strait islands and northern Australia. This section contains two species - *D. affine* and the *D. bigibbum* complex of vars. *bigibbum, superbum, compactum* and *schroederianum* (Adams 2015).

The most commonly grown *D. bigibbum* complex are usually found in open forest with a climate of hot/humid summers and extremely dry winters. In nature they occur from sea level in the northern half of Cape York Peninsula, Torres Strait Islands, Tanimbar Islands and southern New Guinea.

In cultivation they do not like full sunlight in the middle of the day, so 50% of available sunlight is recommended. They need good levels of sunlight to promote strong healthy plants. Air movement is essential and provided there is good air movement they like high humidity.

The growth cycle is in three stages - firstly growth of new shoots, then flowering and finally a rest period. The growth period is in the spring (August to January), flowering is in late summer and autumn (March to late May/June) and the rest period is from mid-April to mid-August. They prefer small pots or even mounting on cork or *Melaleuca* to allow roots to dry out between each watering.

These orchids grow best under a solid or at least a rain proof roof. Walls may be enclosed during the winter months at least. However, if the walls are enclosed, leave an opening of shade cloth at the top of the north and southern walls to allow stale air to escape.

There are ongoing selective breeding programs in the quest for better-shaped and interesting colour forms in this section. Many award quality plants have been bred by Ross and Rhonda Harvey of Cedarvale Orchids in Queensland, Chris Cobb (Edmonton, Queensland) and Fraser Coast Orchids (Maryborough, Queensland) to name a few.

### *Dendrobium* Section *Latouria*

Species in this section are characterized by large flowers which are usually white, yellow or green with black or purple markings on the inner surfaces. The sepals and ovary are often covered with hairs. They are generally epiphytes and grow from sea level to high altitudes in areas of year-round rainfall. This section has up to 50 species ranging from the Philippines to Samoa. The centre of distribution is the Papua New Guinea region, with 45 species.

This section boasts an extended flowering season and longevity of flowers. For this reason, hybridisers have been crossing with sects. *Spatulata* and *Phalaenanthe* to bring some warmth tolerance, colour variation (spots/stripes), morphological characteristics (labellum) and flower longevity into the progeny.

*Dendrobium bigibbum* house, Cedarvale Orchids.

Den. bigibbum var. superbum 'Judy'
Den. bigibbum var. superbum 'Blue' x self
Den. bigibbum var. superbum ('alba' x 'Norma Sutton') x 'Marble'
('Bruce Gray' x 'Ron's Splash')
Den. bigibbum var. superbum ('Marble' x 'Cobb's Splash')

Selective breeding in *Dendrobium bigibbum*. Photos R. Reitano

*Dendrobium bifalce* is the only species in this section that grows on the Australian mainland. It imparts stripes when used as a parent in hybridizing. With maturity, species in this section and the intersectional hybrids made with sect. *Spatulata* and *Phalaenanthe* produce some very impressive specimens.

**Culture In Sub-tropical Queensland**

The general requirements that all orchid growers need to address are light/temperature, water/humidity, airflow, nutrients/fertilisers, growing media and preventative methods for fungal and pest control. However, more importantly one must have an understanding of the climatic or seasonal variations within the natural habitats for each genus and manipulate the general requirements above to replicate these conditions in culture.

In their natural state, the majority of dendrobiums grow as epiphytes, with a small number also growing as lithophytes. When deciding how to grow these in cultivation, it is imperative to consider the roots of these plants and how they function to obtain nutrients and still maintain aeration around the root mass.

Aeration of the root mass is essential for good plant health. If the plants roots are in a tight mix, they will soon become water-logged and rot sets in, leading to further health problems for the plant. Therefore, consider the method of culture for the specific needs of the individual plant regardless of their section.

In general, it is best to group plants of the same section together in the greenhouse to create their own microclimate and to control feeding and watering. Hanging will prevent taller plants from falling over on the benches and also allows more air circulation between the plants.

Light and Air Movement

Very bright light conditions and constant airflow is the secret to success with sect. *Phalaenanthe*. Intense light and warmth can be achieved by hanging those sect. *Spatulata* species growing in *Melaleuca* woodland regions of North Queensland high on the southern wall just under the roof line.

Section *Latouria* plants generally require less light intensity, as many grow in lowland rainforests and montane rainforest, so a little protection may be needed during the intense heat of summer. Sitting sect. *Latouria* plants over trays of water promotes higher humidity and a cooler root zone. Intermediate hybrids, which are influenced by sect. *Phalaenanthe* (*D. bigibbum*) require a lesser winter rest period and can produce new growths once flowering has finished.

Generally, higher light levels can be tolerated if adequate air movement is present. Airflow is essential to control the leaf surface temperature and manage fungal and bacterial outbreaks. Fans will move air through the house, especially in warm and humid months. During the winter some protection is needed to prevent the chilling and drying effect of westerly winds.

Humidity and Watering

Maintaining humidity and moisture levels is paramount. Always follow the seasonal requirements of the plants in each section, whether watering by hand or with an automated watering system. Using similar potting mixes throughout your collection will assist in maintain evenness of water availability around the root zones. Either treat the bark to reduce tannins or use pre-treated mixes. Pre-composed barks may break down more quickly and cause problems in the root zone.

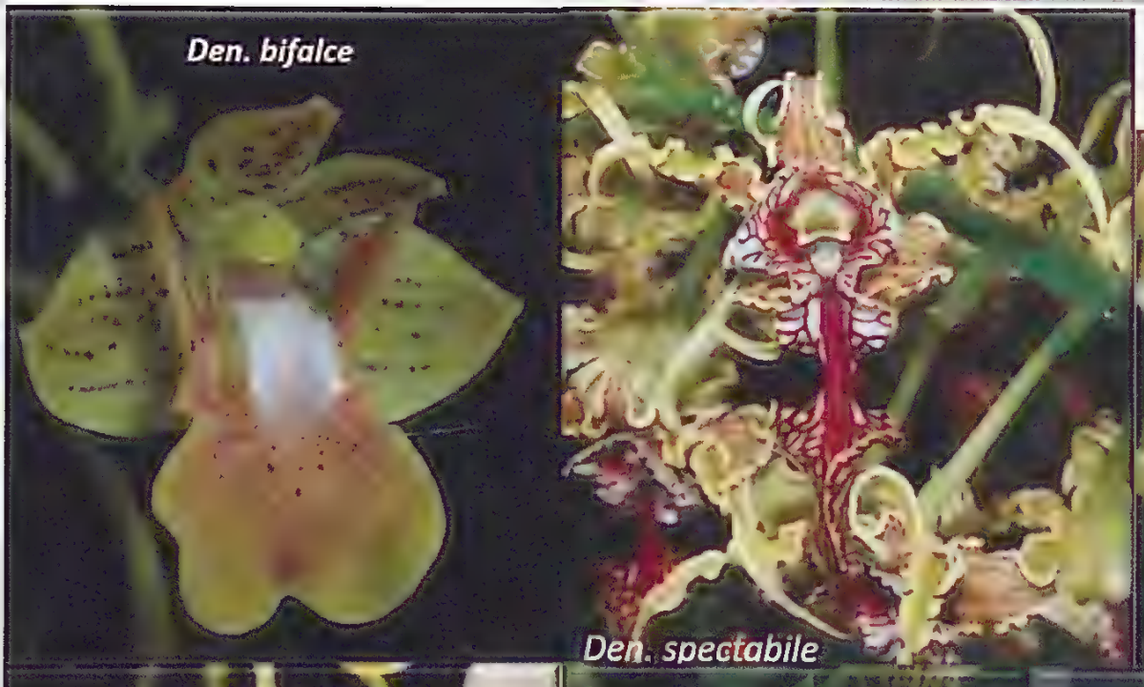
Fertilizing

Fertilize all year round for sects. *Spatulata* and *Latouria*, but sect. *Phalaenanthe* require a winter rest period. Section *Latouria* respond best to a weaker concentration of nutrients as they have more moisture around the root zone than other sections. The best rule of thumb is to fertilize weakly-weekly.

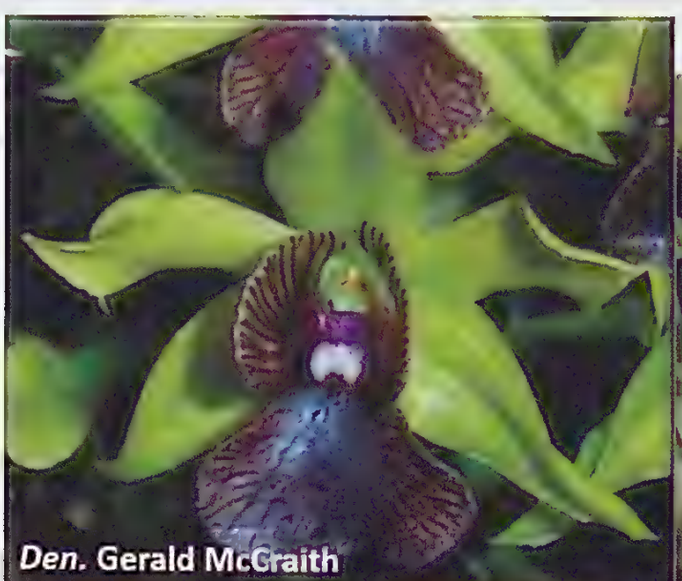
Pests and Diseases

In times of inclement weather prevention of fungal and bacterial outbreaks can be managed with the approach 'prevention is better than cure'. Be sure to alternate fungicides to reduce the chance of fungal spores building resistance. Similarly, use various insecticides for the same reason. Winter stress can be addressed by using

*Dendrobium* section *Latouria*



*Dendrobium* section *Latouria* hybrids.
Photos R. Reitano



*ia* species. Photos R. Reitano

synthetic products such as *Envy* (anti-transpirant and frost protectorant) or organic products such as *Seasol (*liquid seaweed fertiliser).

Finally, each cultural environment is different from others and what works for me may not work for you. Take away some ideas and experiment in your own individual conditions to see what suits your plants.

**Acknowledgements**

Thanks to Chris Cobb, Jon Cara, Peter Adams and David James for providing photographs.

**References**

Adams PB (2015) *Dendrobium bigibbum* (sect. *Phalaenanthe*) in Australia — analysis of diagnostic characters, review of taxa and a new classification. *Kew Bulletin* 70:16 DOI 10.1007/S12225-015-9565-X.

Cribb P (1989) *A Revision of The Antelope and "Latourea" Dendrobiums*. England: Kew, Royal Botanic Gardens.

Jones DL (2006) *A Complete Guide to Native Orchids of Australia, including the Island Territories.* New Holland Publishers Pty Ltd, Australia.

Lavarack B, Harris W & Stocker G (2006) *Dendrobium and its Relatives*. Australia: Kangaroo Press.

Lavarack PS, Gray B & Dockrill A (1985) *Tropical Orchids of Australia*. Australia: Thomas Nelson.

*Robert Reitano is a judge with ANOS Inc., the Australian Orchid Council and North Moreton Queensland Orchid Council. He has a keen interest in learning about orchids, their specific cultural requirements, and exhibiting them to their best capacity.*

**ORCHIDACEOUS SUPPLIES**

***For all your orchid accessories –***

Kiwi Orchid Bark, RCRA Orchid Char, Perlite, Cork, growing media, Pots, clips, labels, & lots, lots more.

***Contact us***

**Grahame & Margaret Muller**
P O Box 4192, TINANA, Qld, 4650
Phone 0408 076 511

**supplies@orchidaceoussupplies.com.au**

**www.orchidaceoussupplies.com.au**

***Looking for a book -***

**ORCHIDACEOUS BOOKS**

For new, pre-owned orchid books & magazines

**www.orchidaceousbooks.com.au**

***For all your orchid books & supplies***

# Cool-Growing Australian Orchid Hybrids – Where Have We Come From?

Text and Photos by David Cannon
davika@bigpond.com

## Introduction

It is just over 138 years since the first man-made *Dendrobium* hybrid was registered, with the second one 92 years ago and 136 years since the finding of the first recorded natural *Dendrobium* hybrid. In this article I review the history of the breeding of Australian dendrobiums, some early *Sarcochilus* hybrids and the start of *Cymbidium* hybrids that used Australian species.

## History of Australian Hybrids

For the first man-made hybrid we need to look at how and when it was made, and the discovery of the first natural hybrids. In the mid to late 1800s Australian *Dendrobium* plants were taken back to England, including *D. kingianum* and *D. speciosum*. The first recorded was *D. speciosum* after 1800, then other species including *D. kingianum*, which was sent to England in 1843 by John Carne Bidwell (then Government Botanist and Director of the Sydney Botanic Gardens). John Bidwell named the orchid after his friend Captain P. King RN, and it was originally called Captain King's *Dendrobium*. In 1882 the first registered hybrid was made by Mr. Lawrence in England as *D.* Specio-kingianum. As we know, natural hybrids were subsequently found and given the name *D.* × *delicatum*. The first recorded original natural *D.* × *delicatum* was found on Spring Bluff just outside of Toowoomba in 1884 and was validated by Alick Dockrill and plants are still in cultivation. Divisions were sold in the 1960s in Sydney as *D.* × *delicatum* 'Dockrill type form'. I still have divisions today and it grows very easily and flowers every year. It is just an ordinary orchid but part of our orchid history.

In 1928 the second hybrid registered was by a German wool buyer who was living in Turramurra in Sydney, Dr. W. Schmidt. In the January/March1936 edition of *Australian Orchid Review* Dr. Schmidt says that he came to Australia from Germany for the first time in 1899, and orchids soon became a special interest. He then goes on to tell that the first plants he took home were collected from the hills round the Hawkesbury River, being *D. speciosum*, *D. linguiforme* and *Liparis reflexa*. These plants were housed in a glass structure in the window of his home in Germany. He advises that he took more plants home to Germany the following year. He then took up growing orchids from seed, and the hybrid *D.* Ellen was made, being a cross between *D. kingianum* and *D. tetragonum*. The particular form of *D. kingianum* was known as 'Schmidts', was sold in Sydney well into the 1950s and 1960s and was listed in Bert Overall's Catalogue list in 1971. It can still be sourced today and has a low growing habit.

During the 1920-30s numerous *Dendrobium* natural hybrids were found on Alum Mountain, New South Wales by Dr. H.L. Kesteven and were given the name of *D. kestevenii* by Rev. H.M.R. Rupp in 1931 in the *Proceedings of The Linnean Society of New South Wales* (56:135). One particular plant was called *D. kestevenii* 'Buff' and it was featured in John Bisset's 1935-36 catalogue (a Sydney orchid nursery) with the selling price of five shillings. When different plants were found, they were given names which reflected where they had been found. These included 'Moodies' found in the headwaters of the MacDonald River, 'Alum Mt', Roy Clifford', 'Gloucester Bucketts' and *D. kestevenii* 'Mernot' from Gloucester Tops.

In his 1971 catalogue Noel Jupp (Riverdene Orchid Nursery, New South Wales) listed *D. kestevenii* 'Yellow' as a parent with *D.* × *gracillimum* 'Daffodil'. In the same catalogue *D. kestevenii* is listed at $5.00 for a flowering size plant. Bert Overall in Sydney listed three or four-growth plants for $5.00 in his catalogue of 24/6/1971. In Ira Butler's collection in 1973, *D. kestevenii* is listed as a parent in a hybrid.

*Dendrobium kestevenii* is now known as *D.* × *delicatum*. Many more plants of *D.* × *delicatum* were collected in the 1930s and onwards from various locations. They were given identifying names from where they were found, such as 'Rosewood" which was found growing on a rosewood tree in *D. speciosum* var. *hilli* country, 'Comboyne Rock', 'Stan Beaumont Dorrigo'

## NATIVE HYBRIDS

This popular section holds great promise for the future. Second generation parents like Andrew Perrson should produce heavy substance and very beautiful flowers.

**NH109—DENDROBIUM SPECIOSUM COMPACTUM x D. KINGIANUM "DARK RED".** Should be like a miniature Delicatum etc. Small compact plants with flowers of varying shades of pink. 2"pots $1.00 ea.; 3" pots . $2.00 ea.

**NH114—DENDROBIUM DELICATUM x ANDREW PERRSON.** A second generation hybrid of great promise. Flowers should be of good size and shape, mostly white or very pale cream. 2" pots ..... $1.00 ea.

**NH117. DENDROBIUM VIRGINIA JUPP. (D. Teretifolium "Fasciculatrum") x D. Linguaforme "Nugentii").** A very interesting cross, plants of a previous crossing have developed a very compact growth habit. These plants should be free flowering with short dense sprays of white flowers. Mounted on fibre blocks. ..... $1.00 ea.

**NH119—CYM. SAUVE x MADDIDIUM.** We hope this cross will produce nice arching sprays of green flowers with red labellums. The sauve influence should reduce the size of maddidum to a size more fitting a miniature flower. 4" pots ..... $1.50 ea.

**NH120—DENDROBIUM ELLEN.** This crossing was made with a really fine form of Tetragonum Giganteum, so we expect some very superior flowers as a result. Limited supply. 2" pots ..... $1.50 ea.

1970 CATALOGUE

## NATIVE HYBRIDS

This popular section holds great promise for the future. Second generation parents like Andrew Perrson should produce heavy substance and very beautiful flowers.

**NH109—DENDROBIUM SPECIOSUM COMPACTUM x D. KINGIANUM "DARK RED".** Should be like a miniature Delicatum etc. The first of these to flower have in most cases far exceeded our expectations, some of them being very beautiful flushed pinks. 2" pot size ..... $1.50 ea.

**NH114—DENDROBIUM DELICATUM x ANDREW PERRSON.** A second generation hybrid of great promise. Flowers should be of a good size and shape, mostly white or very pale cream. 2" pot size ..... $1.50 ea.

**NH119—CYM. SAUVE x MADDIDIUM.** We hope this cross will produce nice arching sprays of green flowers with red labellums. The sauve influence should reduce the plant size of maddidum to a size more fitting a miniature flower. 4" pot size ..... $2.50 ea.

**NH122—DENDROBIUM KINGIANUM "LARGE" x KINGIANUM "CANDY STRIPE".** A cross made in attempt to produce superior quality free flowering vigorous strains in the lighter mauve shades. 2" pot size ..... $1.25 ea.

**NH124—DENDROBIUM DELICATUM forma "KESTEVENII" YELLOW VAR. x D GRACILLIMUM "DAFFODIL".** An outstanding cross for quality yellow flowers. In a very limited supply as only a few plants were raised. 2" pot size ..... $2.00 ea.

10

Excerpts of Riverdene Catalogues. Hybrid sections 1970, 1971.

with this pedunculatum we can be reasonably sure of red dailies 2" pots

**N122/83 S. Fitzhart.** (S. fitzgeraldii x S. hartmannii) Possibly the most popular and reliable of our sarco hybrids. With really top parents on both sides there are bound to be some winners here 2" at $5.00

**N152/83 S. Weinhart.** (S. weinthalii x S. hartmannii) Another remake of a hybrid winner. An easy grower that normally produces delightfully dappled flowers in the first year and soon makes a specimen plant 2" at $5

**N153/83 D. Kingianum.** (D. kingianum "Woodlands" x D. kingianum "silcockii") "Woodlands" is a concolour shell pink; crossed with a vivid silcockii it should produce very nice light coloured kingies 2" pots

**N154/83 D. Kingianum.** (D. kingianum "Woodlands" x D. kingianum "Alba") The alba used here is a definite albino, so this cross should produce a fair percentage of whites with the balance off-whites to shell pink 2" pots

**N257/84 D. Bardo Rose.** (D. falcorostrum x D. kingianum "silcockii") A remake of one of our most famous native crosses. This one should produce mainly whites and light pinks 2" pots

**N[illegible]/84 D. x Rupplosum.** (D. speciosum v. grandiflorum x D. rupplianum) This is the man-made cross of the naturally occurring hybrid from up the top. According to friends who have spent many years in these areas it is about as common as delicatum is or was in its area. I have two natural clones that thrive in our conditions. A truly lovely orchid, both of mine flower a glistening white on upright scapes. Should grow cold 2" pots

**N279/84 D. Kingianum.** (D. kingianum "Alwyn" x D. kingianum "Tungsteds Pink") These are both top show clones, the cross was not done looking for any particular colour, just good, big kingies! 2" pots

**N272/84 D. Kingianum.** (D. kingianum "Val No 1" x "Tungsteds" seedlings) We did this one mainly for texture and habit. Colour should range from off white to light pink

**N284/84 D. Kingianum.** (D. kingianum "Corrigans' Red" x D. kingianum "Ha Ha") Two of the best reds in the business. One early and one late, so this one can flower anytime. Doesn't matter when as long as the results are red! 2" pots

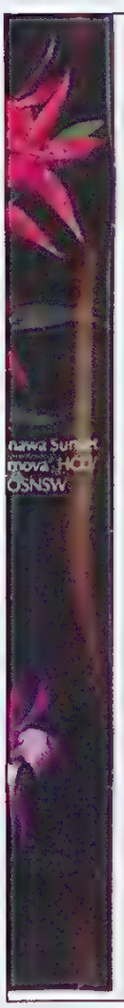
**N285/84 D. Kingianum.** (D. kingianum "Val No 1" x D. kingianum "Keith") Two beautiful clones in every way. We made the cross just looking for better show kingies. 2" pots

**N287/84 D. Kingianum.** (D. kingianum "Karl Marx" x D. kingianum "Firebeard") One of the best reds and one of the best lips between these two. Still looking for the ultimate red 2" pots

**N[illegible]/84 D. Ella Victory Leaney.** (D. kingianum "Tungsteds Pink" x D. rupplianum var. magnificum). A remake of an ever popular cross with two hard to beat parents. Should produce winners, mainly whites and pinks 2" pots

Merrellen Catalogue. Inside front cover 1988-89.

Merrellen Catalogue. Middle pages 1991-2.



Down Under Native Orchids 1994

## Hot/Cold *Dendrobium* Hybrids

*available in 50 mm tubes $4.90 each*

376 **D. (Peewee x Sunglow) '#1' X *D. speciosum* var. *pedunculatum* 'Herberton'**
An exceptional quality hybrid crossed with our best pedunculatum. This should compact the plant resulting in a truly rewarding hybrid, carrying good heads of multicoloured flowers on erect spikes. Good growers.

215 **D. (Star of Gold x fleckeri) '#1' X *D. bigibbum* 'My 698'**
This is a new hot/cold line. We were quite surprised when this produced seed. A bright gold, red spotted fleckeri style hybrid with a very good shaped bigibbum of around 65mm in diameter.

344 **D. Brinawa Charm 'Biggest' X *D.* Jesmond Gem 'Best'**
An Elegant Heart sized solid purple Brinawa Charm crossed with our best Jesmond Gem out of speciosum 'Windermere'. Expect lots of colourful flowers on erect spikes. Strong growers.

369 **D. Brinawa Charm 'Plum' X *D. speciosum* var. *curvicaule* 'T.B.'**
A good shape, plum coloured Brinawa Charm crossed with an outstanding curvicaule, of heavy texture, broad segments, and exceptional shape. Should be highly rewarding.

347 **D. Brinawa Charm 'Plum' X *D.* Jesmond Gem 'Best'**
This should be similar to 344, however we have used a plum coloured Brinawa Charm with top shape. Should be cold tolerant, and floriferous.

350 **D. Brinawa Charm 'Plum, X *D. kingianum* 'Captain Midnight' AD**
This is the type of hybrid that I think will make an exceptional showy pot and specimen plant. Captain Midnight is the darkest of our 264 cross. Should have lots of colour. Limited number.

349 **D. Brinawa Sunset 'Rainbow' X *D.* ((*Graham* Hewitt x Kingrose) x Peter) 'Apricot'**
Here we have a multicoloured star, with orange and purple tonings crossed with a filled in apricot coloured hybrid. You can be sure of high quality from this with a multitude of different colours.

248 **D. Brinawa Sunset 'Rainbow' X *D.* Karloo 'Cream'**
In this cross we are attempting to introduce the vibrant colours of this Brinawa Sunset (see 349) into this shapely speciosum style hybrid. We are hoping for strong erect spikes of well displayed multicoloured blooms.

311 **D. Elegant Heart 'Windy' X *D.* Aussie Victory 'Supernatural'**
Elegant Heart 'Windy' is a shapely clone from speciosum 'Windermere', (Champion hybrid ANOS Gosford 1993) and is crossed with an extraordinary Aussie Victory. (see 255).

307 **D. Elegant Heart 'Windy' X *D.* Ellen 'Atlanta'**
A bright yellow Elegant Heart, (see 311) crossed with a brightly coloured Ellen from the famous 'Deloraine' x 'Boobyalla' grex. Don't miss these, as I expect them to be well worthwhile.

252 **D. Elegant Heart 'Harlequin' X *D.* Yondi Gold '#1'**
An excellent rainbow coloured Elegant Heart (the best I have seen) is crossed here with a top shaped golden Yondi Gold.

Down Under Catalogue 1994.

Nindethana Orchids
P.O. Box 64
Ferntree Gully 3156
758-1887

SELL OUT SALE. WE ARE CLOSING DOWN.

HAVE SOLD OUR PREMISES AND WILL SHUT 21st MAY. ALL ITEMS ARE OFFERED
JECT TO PRIOR SALE. NO SUBSTITUTES WILL BE MADE UNLESS AUTHORISED.

CASH WITH ORDER . ALL PRICES FREIGHT EXTRA. USUALLY AIR FREIGHT .
SERY OPEN WEEKENDS ONLY EXCEPT LAST SUNDAY OF MONTH.

E PRICES 2" 75¢ or as marked.
3" $1.00 "
4" $1.50 "
5" $2.00 "
Species $3.50 or as marked.

| | | |
|---|---|---|
| 39. | DEND.KINGIANUM SCHMIDT'S var | 4" |
| 28. | DEND.KINGIANUM ALBA | 2",3". 4". |
| 67. | DEND.KINGIANUM | 2".3". 4". |
| 72. | DEND.SPECIOSUM. | 3". 4". 5". 10" $3.0 |
| 75. | DEND.LINGUIFORME. | Kounted $1.00 |
| 76. | DEND.ADAE. | 4". |
| 77. | DEND.TETRAGONUM var GIGANTEUM. | Kounted $1.25 |
| 78. | DEND.TERETIFOLIUM | Kounted $1.00 |
| 80. | DEND.RUPPIANUM | 3". 4". 5". |
| 81. | DEND.GRACICAULE. | 3"& 4" $1.00. 5" $1.5 |
| 82. | DEND.FALCORostrum | 4". 5". |
| 87. | DEND.AEMULUM | Kounted $1.00 |
| 68. | CYM. MADIDUM. | 5" $1.50 |
| 70. | LIPARIS REFLEXA var PARVIFLORA | 4" |
| 58. | LIPARIS COELOGYNOIDES | 4" $1.25 |
| 157. | SARC. CECELIAE | 3". |
| 95. | SARC. FITZGERALDII | 4" |

Nindethana Catalogue 1960s.

| | | |
|---|---|---|
| ND.203 | (DEN. GRACILICAULE 'HOWIANUM' x DEN. FLECKERI) x DEN. HASTINGS 'WAYSIDE'. A good yellow mated with the best Hastings should produce some nice bronze colourings. | |
| ND.211 | DEN. RUPPIANUM x DEN. FLECKERI. Peach to apricot coloured flowers. | |
| ND.212 | DEN. ELLA V. LEANY. Large pale lavender blooms. | |
| ND.214 | DEN. HASTINGS. Pink to apricot, large flowers. | |
| ND.210 | SARC. FITZGERALDII x SARC. AUSTRALIS. (2 plants mounted on tree fern .. | $2.50 |
| ND.12 | DEN. FLECKERI x DEN. GRACILICAULE 'HOWIANUM'. Deep yellow blooms. | |
| ND. 1 | DEN. BARDO ROSE. A compact form. | |
| ND.309 | DEN. DELICATUM (W/LILAC) x DEN. GRACILLIMUM (NATURAL). A crossing between two prolific growers and flowerers. The Gracillimum carries 40-50 flowers on the spike and is a good yellow. We are hoping for a soft yellow with Lilac Labellum. | |
| ND.310 | RHINOCHILUS DOROTHY (SARC. HARTMANII x RHIN. DIVITIFLORA). Golden yellow spotted flowers lasting 4-5 days. | |
| ND.40 | DEN. BARDO ROSE 'TALL'. Plants growing to 2'0' high. White to pink perfumed flowers. | 4½" pots .. 6" pots .. 8" pots .. |

* * * *

We also have many crosses that are too few in number per c
list. Please ask if you require any hybrid not listed and, if
we will supply divisions from our parent stock.

Nindethana Catalogue 1975.

Den. x gracillimum Den. kingianum 'Betty' Den. Eureka

come, give yourself a Spring full of blooms with our

SIE CONFERENCE COLLECTION'

rids all bred from select parents to give prolific growing and flowering. Cold-hardy plants.

'AUSSIE CONFERENCE COLLECTION'

n. Gillian Leaney (delicatum 'Apple Blossom' x kingianum 'Betty') — pinks.
Den. Suffusum — spotted pinks.
Den. Eureka x gracillimum — yellows.
Den. Allyn Star x falcorostrum — perfumed cream to yellow.
Den. x suffusum x falcorostrum — perfumed pinks
Den. Blushing Star — star-shaped pinks.
Den. Ellen 'Snow White' x falcorostrum — perfumed star-shaped whites.
Den. Delicate Falcon — perfumed whites.
Den. King Rose — pinks to reds.
Den. Gillian Leaney 'Alba' (delicatum 'Apple Blossom' x kingianum 'Alba') — white to cream, perfumed.

Stock

Arbor
Sandon
Mandu
Stratfo
Hills D
Ro-an
Merrel

SIE CONFERENCE COLLECTION'

(ONE OF EACH HYBRID 5 cm POTS)

10 PLANTS $30.00

Nindethana advertisement, Australian Orchid Review mid 1980s.

Nindethana Orchids
Specialising in Cool Growing Orchids

P.O. Box 94, Mitcham, Australia
(03) 873 5366
International 61 3 873 5366

PLANT LIST NO: 5 August, 1985.

All seedlings are fully hardened and in 5cm tubes unless marked otherwise. Cymbidium seedlings and mericlones are single growths and average 15cm leaf length unless marked otherwise. Dendrobium seedlings are an average three growths.
Prices are ex Nursery and freight is additional. Where possible freight will be Pre-Paid and Invoiced with plants.
All plants are offered subject to prior sale. All plants guaranteed true to label. Please advise if we may substitute.
AIR PARCEL POST NORMALLY USED. PLEASE ADVISE IF YOU WANT ANY OTHER MEANS. $10.00 would normally cover up to 15 plants.
Nursery open strictly by appointment only. Please phone first.

| NATIVE DENDROBIUM HYBRIDS | PRICE |
|---|---|
| Den.King Falcon x Den. x delicatum 'Apple Blossom' King Falcon is King Rose x falcorostrum and this parent clone is white with pink splashes on the petals and sepals. Crossed into the very vigorous Apple Blossom we will see prolific .. flowering, vigorous growers with all colours of pink and maybe some splash colouring. | 8cm.$5.00 |
| Den.King Rose (Bardo Rose x kingianum) Free flowering pinks to reds, many will have contrasting labellums | $3.00 |
| Den.Sunglow x self (fleckeri x speciosum) In our opinion the best fleckeri hybrid to date. Flowers twice a year with deep apricot flowers and contrasting red markings on the labellum. Up to 9 flowers per raceme Winter flowering. | $3.00 |
| Den.Sunglow x Den.tetragonum With the multiple flowering of both parents and the dense raceme's of Sunglow onto tetragonum we will have a compact free flowering, star shaped apricot flowering hybrid, plus the benefit of multiple flowering. | $3.00 |
| Den.Delicate Falcon (delicatum 'Comboyne White' x falcorostrum) A pure white natural delicatum on the perfumed falcorostrum will give us a crisp white, free flowering, vigorous growing hybrid. | $3.00 |
| Den. x Suffusum (kingianum Betty' x gracilicaulle) A remake of the natural hybrid. Good pinks with varying colour markings. kingianum 'Betty' is one of the darkest red's we have seen. | $3.00 8cm.$5.00 |
| Den.Gillian Leaney ( x delicatum 'Apple Blossom' x kingianum 'Betty' | |

Nindethana Catalogue 1985.

and 'Lansdowne'. In 1935 a natural plant called *D.* × *delicatum* 'Apple Blossom' (due to its colour and fragrance) was found on Mt. Lindesay in New South Wales. This has proved to be a very vigorous grower and flowerer and is still in many collections today, as plants were sold by Bert Overall in Sydney in the 1960s and early 1970s.

Man-made *D.* Delicatum has been remade many times by a large number of people using different varieties of *D. speciosum* which resulted in a variety of shapes and colours. One in particular was bred by Ira Butler and released by Wayside Nurseries and Roger Bedford as IB188, and is considered by many to be one of the best. The most highly regarded of the cross was 'Kerrie', which has also been mericloned. When Ira Butler's collection was sold in 1973 the parents of this particular hybrid were listed as *D. kingianum* 'DP' x *D. speciosum* 'Logan'. Other natural hybrids found during the 1920s-1940s were plants of *D.* Gillian Leaney (× *delicatum* x *kingianum*), D. × *gracillimum* (*gracilicaule* x *speciosum*) and *D.* × *suffusum* (*gracilicaule* x *kingianum*) from various locations.

In 1961 the third registration of a *Dendrobium* hybrid was *D.* Bardo Rose by Bert Overall in Newport, Sydney. Bert lived in Bardo Road and his wife's name was Rose, hence the name. This was a result of a cross between *D. kingianum* and *D. falcorostrum*. Bert had a small listing of plants that he sold. *Dendrobium* Bardo Rose has been remade many times and like *D.* Delicatum they can grow into fine specimens.

Looking at *Dendrobium* hybrids today, I wonder if the early hybridists could have envisaged the vast range that is now available. Most of the hybridising did not start until the 1960s and from this period we saw an increase of hybridists from 1970 through to the present time.

During the 1960s Ira Butler, who many consider the founding hybridiser of cool growing Australian orchids, made a number of *Dendrobium* and *Sarcochilus* hybrids, including *D.* Hilda Poxon. The *Australian Orchid Review* June 1967 front cover illustrates one of Ira's *Sarcochilus* hybrids, *Sarcochilus* Lois (*ceciliae* x *hartmannii*),. In 1962 the first of Ira's *Sarcochilus* hybrids flowered and was later registered as *S.* Canary (*hartmannii* x *olivaceus*). His second *Sarcochilus* hybrid to flower was *S.* Fitzhart (*fitzgeraldii* x *hartmannii*). *Sarcochilus* Lois was the last of his first seven *Sarcochilus* hybrids to flower and Ira noted that it proved to be the most interesting.

In the late 1960s and early 1970s Bill and Jean Cannons of Wayside Nursery in Port Macquarie were raising Ira's hybrids and selling his crosses through their numerous catalogues. Wayside Nursery also produced a large number of *Dendrobium* and *Sarcochilus* hybrids. Roger Bedford in Sydney, a friend of Ira Butler, was selling Ira's hybrids from the late 1960s through to the early 1980s. In 1972 Wayside Nursery released Ira Butler's *D. speciosum* x *D. tetragonum* hybrid, B202, subsequently registered as *D.* Hilda Poxon. Reg Leaney in Sydney was also making a small number of hybrids at this time.

Due to the popularity of the various *Dendrobium* and *Sarcochilus* hybrids becoming available, many hybridists from this period created a large range of hybrids in numerous colours, shapes and with multiple flowering, some many times a year. I started hybridizing in the late 1960s through to the early 1990s as Nindethana Orchids and used many different *D.* × *delicatum* as well as *D.* × *kestevenii* 'Buff' as parents. I also did some albino gene breeding of dendrobiums, and restarted hybridizing in 2007.

Many hybrids were produced by commercial nurseries and were available via catalogues while other hybrids made by individual people had limited availability. The 1970s saw hybridists producing a large number of plants. These include Bert Overall, Roger Bedford, Wayside Nursery and Riverdene Nursery, all from New South Wales. In 1973 Noel Jupp of Riverdene Nursery produced the second registered *Dendrobium* hybrid using *D. tetragonum* as a parent with *D. falcorostrum,* registered as *D.* Star of Gold. The third *D. tetragonum* influenced hybrid was *D.* Allyn Star, also in 1973. The catalogue of Ira Butler's collection in 1973 listed 25 *Dendrobium* hybrids and 15 *Sarcochilus* hybrids. Noel followed on with a number of *Dendrobium* hybrids using *D. tetragonum* as a

*Dendrobium* Gillieston Reward

*Dendrobium* Star of Gold

*Dendrobium* Graham Hewitt

*Dendrobium* Eureka

*Dendrobium* Allyn River

*Dendrobium* Crowea Sunset

*Dendrobium* Issy's Delight

*Dendrobium* Star of Riverdene

*Dendrobium* Stunning

*Dendrobium* Avril's Gold 'Ray'

*Sarcochilus* Velvet 'Cool Dude' x S. Cherie 'Dappled'

*Sarcochilus* Serena 'Bold Eyes'

parent in first and second generation hybrids with *D. tetragonum* influence. He was a foundation member of ANOS Newcastle over 50 years ago.

During the 1970s-1990s a number of general orchid nurseries made *Dendrobium* and *Sarcochilus* hybrids available and the hybridiser of these plants are unknown. These included Limberlost Nurseries and Sunnybank in Queensland and Dos Pueblos Nursery owned by York Meredith in Sydney.

In the 1980s-1990s commercial hybrids were made by Phil Spence (a prolific hybridizer, including the *Dendrobium* Aussie hybrids), Wal Upton (Double U Orchids) in New South Wales and Merrellen Orchids (Ted & Barbara Gregory) in Queensland. Others included J. Jarvis (*D.* Brinawa hybrids) F. Skillicorn (*D.* Gillieston hybrids), N. Mitchell (*D.* Bellinger hybrids), R. and D. Sheen and Col Brandon. Sid Batchelor was an active Sydney hybridizer who produced the Yondi series of *Dendrobium* hybrids. Neil Finch established the highly successful Down Under Native Orchids in Newcastle, New South Wales.

In the 1990s the first full colour catalogues became available. Merrellen Orchids catalogues were produced from 1991-7. In 1994 the DUNO catalogue released the largest number of Hot/Cold *Dendrobium* hybrids that became available, mainly with *D.* Brinawa influence, with *D.* Pee Wee as a parent. DUNO used some of the best species and hybrids emerging in the collections of Newcastle growers and made very significant advances with a wide range of *Dendrobium* hybrids, *Sarcochilus* and line breeding of *D. kingianum* and *D. speciosum*. The nursery was taken over by Brian Gerhardt who developed sect. *Rhizobium* hybrids, and subsequently by Callyn Farrell and Grahame Young who are the current owners and who have extended the lines of hot/cold hybrids and sect. *Rhizobium*.

Izzy Klein in Melbourne made some good hot/cold hybrids in Melbourne with *D. tetragonum* influence in the 1990s, the first being *D.* Issy's Delight. From the 1990s until now many other hybridists have created a large range of hybrids and hybrid registrations can be found on the ANOS web site (anos.org.au). Michael Drobski in Melbourne has made a range of Brimbank *Dendrobium* hybrids since early 2000. Wayne Turville established the Australian Orchid Nursery in Tyabb, Victoria in the 1990s and probably has the largest range of hybrids available, with a focus on brightly coloured *D. tetragonum*-style flowers as well as section *Rhizobium*, *Sarcochilus* hybrids, and line-bred *D. speciosum*.

Other nurseries include Ray Clement (Tinonee Orchid Nursery) and Lloyd Edwards (Earth to Joy) both in New South Wales. Peter Adams and Sheryl Lawson in Victoria have specialized in section *Dendrocoryne* hybrids with the Yarra series (white, pastel and yellow-flowered *D. kingianum*-style hybrids) along with improved Jesmond Gem remakes.

**Australian Cymbidiums**

American nurseries saw the potential of Australian cymbidiums very early and used Australian *Cymbidium* species for breeding in the 1960s. Greenoaks Nursery in California, registered *C.* Little Black Sambo in 1966 (*C. madidium* x *C. canaliculatum*). Noel Jupp, Riverdene Nurseries listed NH119 *C. suave* x *C. madidum* in his catalogue dated 1/5/1970. In 1972 Greenoaks registered *C.* Kuranda (*madidium* x *suave*). We have seen many new hybrids using Australian cymbidiums as the interest has grown for smaller, compact plants, with some of them being pendulous. One of the most interesting I think is *C.* Aussie Trio (Kuranda x *canaliculatum*) registered by Kevin Weston from Adelaide in 2003. Many *Cymbidium* hybrids have been made with one parent an Australian *Cymbidium*.

I trust that you will enjoy the new range of cool-growing hybrids as they become available.

*David Cannon has been hybridizing Australian dendrobiums since the 1960s, starting as Nindethana Orchids. He is a founding member of ANOS Inc. and the current Patron, as well as a founding and life member of ANOS Victoria.*

# *Dendrobium niueense* – A New Species from Niue

Paul Ormerod
wsandave1@bigpond.com

**Abstract**

*Dendrobium niueense,* a member of *Dendrobium* section *Grastidium,* is proposed as new. It is compared to the most similar known species, which is probably also its closest relative, *D. emarginatum* from the Society Islands.

**Key words.** *Dendrobium, Grastidium,* Niue, new species

*Dendrobium* Swartz is a genus of 1600-1800 primarily epiphytic species distributed from Sri Lanka and India to the Society Islands. Generally, the plants have cane-like stems, but there is considerable variation in vegetative morphology, with some species having tiny pea-sized pseudobulbs, as in *D. margaretae* T.M.Reeve, to branched "chandeliers" of terete leaves without obvious pseudobulbs, as in *D. teretifolium* R.Br. The genus is divided into 30 sections (Schuiteman 2014), the largest of which is section *Grastidium* Blume, currently with 222 species, most of which (157) are found in New Guinea (Juswara et al 2019; Ormerod 2017, 2018).

During recent herbarium studies of some Pacific Island species of section *Grastidium* it was noticed that a specimen identified as the widespread Pacific entity *D. biflorum* (J.G.Forst.) Swartz from Niue differed from that species in having broader, obtusely bilobed leaf tips, rather than the narrower, acutely bilobed leaf tips that are characteristic of *D. biflorum*. The Niue plant agreed in vegetative characters with another taxon from the Society Islands that was described as *D. emarginatum* J.W.Moore.

Comparison of the Niue plant with images of spirit material of *D. emarginatum* kindly provided by Hanna Margonska (UGDA) shows that the flowers of the Niue specimen are much more slender (sepals half the width of *D. emarginatum*), and that the lip lacks a prominent midkeel, whilst the epichile is more than twice the length of the hypochile (vs. subequal length). These differences are significant within the context of species circumscription in sect. *Grastidium*, the Niue plant is thererfore described as a new species.

**Key to the *Dendrobium biflorum* alliance in the Pacific Islands (Solomons to Society Islands).**

1. Apex of leaves acutely bilobed; labellum adorned with subulate, hair-like processes … 2

1*. Apex of leaves obtusely bilobed; labellum without hair-like processes ..... 3

2. Labellum strongly trilobed; sidelobes prominent, lanceolate; midlobe ovate-lanceolate; midkeel terminating in a free ovate-lanceolate point ..... *D. biflorum.*

2*. Labellum almost entire or weakly trilobed; sidelobes very small, rounded; midlobe ovate to elliptic; midkeel decurrent on hypochile, without a free apex ..... *D. vanikorense.*

3. Flowers with sepals 3.7-4.0 mm wide; mentum 4 mm long; midlobe and midline length of hypochile about the same; midkeel relatively prominent, 1 mm wide ..... *D. emarginatum.*

3*. Flowers with sepals 2.0-2.2 mm wide; mentum 0.9 mm long; midlobe about twice the midline length of the hypochile; midkeel not prominent, 0.3 mm wide ..... *D. niueense.*

***Dendrobium niueense*** Ormerod, *sp. nov.*

Type: Niue Island, Fonukula Plantation, near Alofi, 65 m, 25 January 1940, *T.G. Yuncker 9873* (Holotype: AMES; Isotype: BISH, image seen). Figure 1.

Diagnosis: Most similar to *D. emarginatum* J.W. Moore but the flowers with narrower sepals (2.0-2.2 vs. 3.7-4.0 mm wide), labellum with a narrow, 0.3 mm wide midkeel (vs. broader, 1 mm wide), and an epichile that is more than twice the length of the hypochile (vs. subequal).

Presumably epiphytic herb. Roots terete, to 2 mm thick. Stems terete, erect, caespitose, sublaxly leafy, 36.0-46.5 cm long, 0.2 cm thick. Leaves lanceolate, apex asymmetrically obtusely bilobed (one lobe 0.5 mm longer than the other), stiffly gramineous, strongly 3 veined, 37-80 mm long, 4.5-6.5 mm wide; leaf sheaths tubular, smooth, finely striate, 5-17 mm long, with an ovate, obtuse lobule to 1.5 mm long at apex opposite insertion of leaf. Inflorescences very

short, biflorous; primary sheath transversely elliptic, 1 mm tall, 2.5mm wide; secondary sheath broadly ovate, obtuse, 1.5 mm tall, 1.8 mm wide. Flower colour not recorded. Pedicel with ovary narrowly clavate, 4.5 mm long; capsule clavate, 13 mm long (minus pedicel), 4.5 mm thick, pedicel 4 mm long. Dorsal sepal linear-lanceolate, subacute, 5 veined, 19.8-20.0 mm long, 2 mm wide. Lateral sepals obliquely linear-lanceolate, acute, 5 veined, 19 mm long, 2 mm wide; forming with the column foot an obtuse mentum 0.9 mm long. Petals linear-lanceolate, acute, 3 veined, 15.5 mm long, 0.9 mm wide. Labellum trilobed, 12.6 mm long, 2.85 mm wide; hypochile broadly elliptic, 3.8 mm long medially, 2.85 mm wide, sidelobes subquadrate to ovate, apex irregular to truncate, 0.75 mm long, 0.75 mm wide; carina linear, narrow, beginning medially at base of hypochile but decreasing into a vein in the upper two thirds of the hypochile, 0.3 mm thick; epichile linear-lanceolate, obtuse, margin dentate for 4 mm in lower half, entire above, 8.8 mm long, 1.75 mm wide. Column obliquely conical, 1.8 mm long, 1.7 mm broad laterally; anther caps 3, the 2 lateral ones sterile; stigmatic area elliptic, deeply concave, at base with a spine-like projection; column foot very short, 0.2-0.3 mm long.

**Distribution**: Niue, definitely known only from the type, but possibly also occurring on Fiji (see below).

**Etymology:** Named after the island nation of Niue, the type locality.

**Vernacular name**: Vaakau.

As noted above this plant is vegetatively identical to *D. emarginatum*, but it differs in having narrower, almost caudate floral segments, a much narrower midkeel on the lip, and a midlobe almost twice the length of the hypochile. Currently it is only known from Niue. However, a vegetatively identical plant collected in 1860 without locality on the Fiji Islands by Berthold Seemann [no. 582 (GH)] and reported by Reichenbach (1868) as *D. biflorum* indicates that the new taxon or an ally occurs further west.

***Dendrobium emarginatum*** J.W. Moore, Bull. Bish. Mus. 102: 24, 1933.

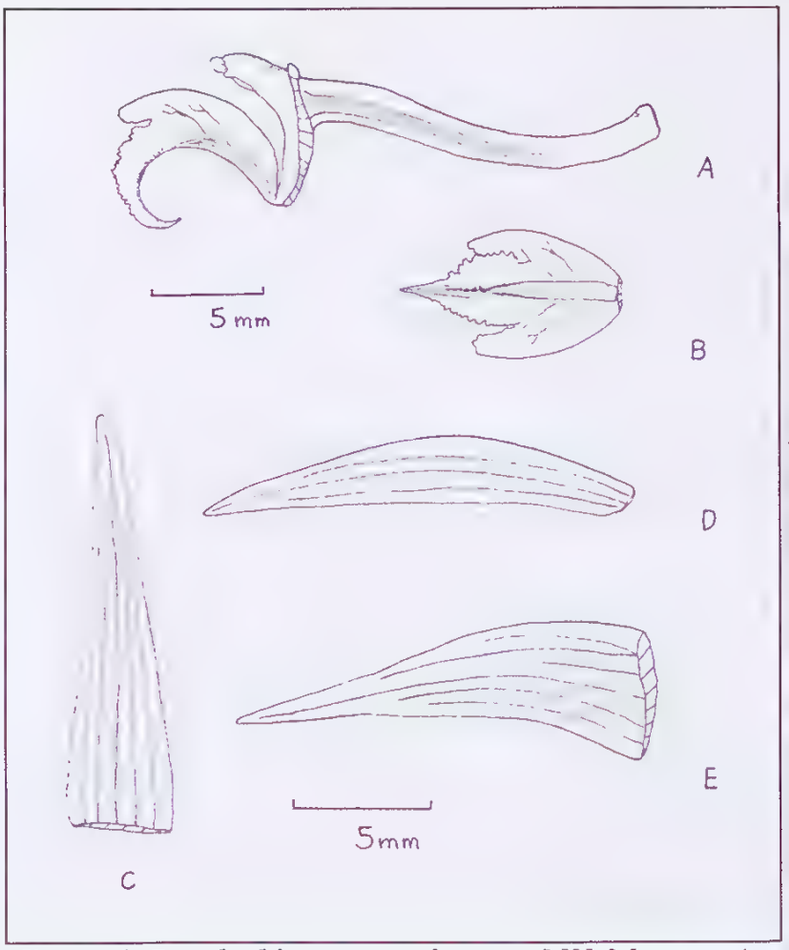



***Figure 1. Dendrobium emarginatum*** J.W. Moore – A. flower minus tepals; B. labellum; C. dorsal sepal; D. petal; E. lateral sepal. Drawn from *Teamotuaitau s.n.* (UGDA).

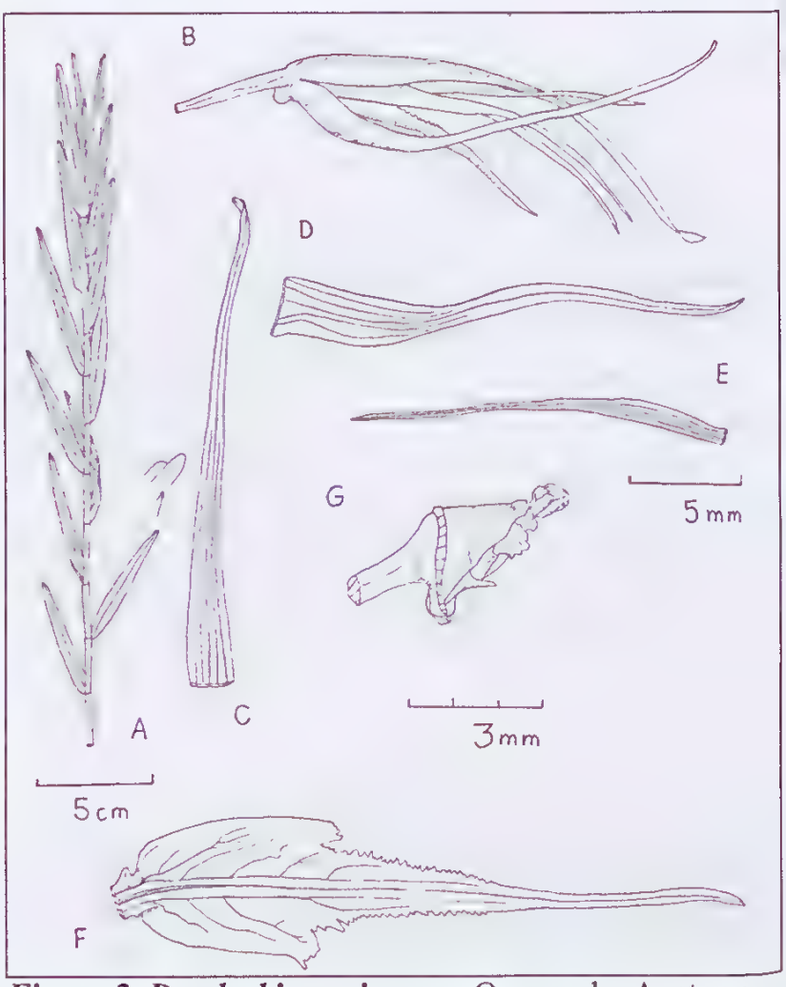



***Figure 2. Dendrobium niueense*** Ormerod – A. stem; B. flower; C. dorsal sepal; D. lateral sepal; E. petal; F. labellum; G. column. A drawn from isotype, rest from holotype.

*Grastidium emarginatum* (J.W. Moore) M.A. Clem. & D.L. Jones, Lasianthera 1, 2: 72, 1997.

Type: Society Islands, Raiatea Island, Avera Valley, 250 m, 11 January 1927, *J.W. Moore 522* [Lectotype (Margonska & Szlachetko 2010: 77): BISH 559481; Isolectotypes: BISH 559482, MIN, images seen; P x2, not seen; NSW!].

**Distribution**: Society Islands.

**Specimens examined**: Society Islands, Tahiti, Mt. Aorai, 1200 m, 23 October 2002, *W. Teamotuaitau s.n.* (UGDA alc., image seen); Mt. Aorai, 1100 m, Noha Ridge, 27 September 1921, *E.H. Quayle 58 p.p.* (BRI).

Apart from an isotype in NSW, the only other material seen was a sterile collection in BRI that was found mixed with *D. biflorum*. Fortunately the images of spirit material provided by Hanna Margonska have greatly clarified the characters of *D. emarginatum* (see Fig. 2), as summarised in the key to species, above

**Acknowledgements**

I wish thank herbarium and library staff at AMES, BRI, GH, and NSW for their help and hospitality during my visits. Barbara Kennedy (BISH) promptly imaged the isotype of *D. niuense,* for which the author is grateful. Hanna Margonska (UGDA) kindly sent images of spirit material of *D. emarginatum* which greatly facilitated this research.

**References**

Juswara L, Schuiteman A & Champion J 2019 *Dendrobium annulatum* (Orchidaceae: Epidendroideae), a new species of *Dendrobium* section *Grastidium* from Indonesian New Guinea. *Phytotaxa* 414, 3: 151-155.

Margonska, H. & Szlachetko DL 2010 *Orchidaceae of Tahiti, French Polynesia*. Gdansk University Press, Gdansk.

Ormerod P 2017 *Checklist of Papuasian Orchids*. Nature & Travel Books, Lismore.

Ormerod P 2018 Four new Papuan species of *Dendrobium* section *Grastidium*. *The Orchadian* 19, 6: 267-275.

Reichenbach HG 1868 Orchideae (pp. 293-305) in B. Seemann, *Flora Vitiensis*. London.

Schuiteman A 2014 *Dendrobium* Swartz (pp. 51-100) in A.M. Pridgeon, P.J. Cribb, M.W. Chase & F.N. Rasmussen (Eds.). *Genera Orchidacearum 6. Epidendroideae (Part three)*. Oxford University Press.

*Paul Ormerod has studied and described new species over several decades, particularly from New Guinea.*

Orchids Australia

OFFICIAL PUBLICATION OF THE AUSTRALIAN ORCHID COUNCIL

92 Pages

Eye-catching Color

Subscription Rates (six copies)
Australia: $55.00 pa
New Zealand & Asia Pacific: $58
Rest of World: $70

Check out our home page on the internet
http://www.orchidsaustralia.com

Orchids Australia
PO Box 2945, MOUNT GAMBIER
SA 5290 Australia
thea.shaughnessy@bigpond.com

MasterCard (Advise Card Name, Number and expiry date) VISA

AUSTRALIAN DECIDUOUS TERRESTRIAL ORCHIDS

Available as....
Bare root plants: May – August
Dormant tubers: November – February

Easily grown species and hybrids from a range of genera including: *Caladenia, Chiloglottis, Corybas, Cyrtostylis, Diplodium, Diuris, Microtis, Pterostylis* and *Thelymitra*.

NESBITTS ORCHIDS
PO BOX 72
WALKERVILLE, SOUTH AUSTRALIA 5081
Phone: 0411 561 220
Email: lesn@adam.com.au

# Ira Butler Committee Trophies for 2019

Text by Roslyn Capell
capell666@ozemail.com.au

The 2019 competition was judged in February this year. The number of entries in all categories has declined significantly over the past 20 years – a trend I hope can be reversed – but the standard of this year's entries was very high.

**Ira Butler Trophy for Champion Australian Native Hybrid of the Year**

This was the trophy envisaged by the Ira Butler Trophy Committee when it was established. The objective was to stimulate and encourage the advancement of Australian native orchid hybrids, a task which pioneering hybridiser Ira Butler had embraced with enthusiasm and considerable success before his untimely passing in 1972. The first Ira Butler Trophy was issued in 1981.

This year's Gold Ira Butler Trophy winner was *Dendrobium* Australian Butter Bright 'Razz' owned by Carole Barnett. This plant was Grand Champion and Champion Hybrid of the ANOS Newcastle Group Spring Show, and the ANOS judging panel also awarded it a Highly Commended Certificate. The plant had six inflorescences and a total of 200 flowers which were 36 mm wide and 51mm long. The average length of the inflorescences was 420 mm. The grex is well-named if these flowers are representative of the colour to be expected from it as it is indeed a bright butter yellow.

*D.* Australian Butter Bright is *D.* Dunokayla x *D. speciosum*, so it is 84.4% *D. speciosum*, 9.4% *D. fleckeri*, 3.1% *D. falcorostrum* and 3.1% *D. jonesii*. The cross was registered by Australian Orchid Nursery in 2015 with W. Turville noted as the originator. Carole obtained her plant from Australian Orchid Nursery some time back and grows it with her other cool *Dendrobium* hybrids. It has no special growing requirements other than the need to be aware that it hates to get any water in its new growths.

Ira Butler Silver Certificates were granted to:

a) *Sarcochilus* Evening Star 'Red & Yellow 2014' owned and grown and bred by David Butler.

b) *Peristorrhiza* Surreal 'Belmont' owned and grown by Colin Fitzsimmons and bred by Tony Clarke.

c) *Dendrobium* Greta Snow 'Patricia' owned and grown by Henk van den Berg and bred by Don Cruickshanks.

d) *Dendrobium* Jesmond Star 'Melissa' owned and grown by Down Under Native Orchids and bred by John Purvis.

*Dendrobium* Australian Butter Bright 'Razz'. Photo Phil Radford

*Dendrobium* Australian Butter Bright 'Razz'. Photo Phil Radford

*Sarcochilus* Evening Star 'Red and Yellow 2014'. Photo Jody Cutajar

*Peristorrhiza* Surreal 'Belmont' Photo Ian Chalmers

*Peristorrhiza* Surreal 'Belmont' Photo Ian Chalmers

*Dendrobium* Greta Snow 'Patricia'. Photo Ian Chalmers

*Cymbidium canaliculatum* 'PR-1'. Photo Phil Radford

*Dendrobium gracilicaule* 'Golden Leopard'.
Photo William Dobson

*Dendrobium* Jesmond Star 'Melissa'.
Photo Melissa Young

*Dendrobium* Jesmond Star 'Melissa'. Photo Melissa Young

**Bill Murdoch Trophy for Champion Australian Native Species of the Year**

This trophy was introduced by the committee to encourage the line breeding of Australian native species seedlings and was named in honour of the late Bill Murdoch who believed that making horticulturally superior seedlings available to growers would help take pressure off wild populations. The first trophy was granted in 1993.

This year's Gold Bill Murdoch Trophy was won by *Cymbidium canaliculatum* 'PR-1' owned and grown by Carole Barnett. The plant was Grand Champion of the ANOS Newcastle Sarcanthinae Show where it also received an Award of Merit from the ANOS judges. The plant carried 4 inflorescences with 272 flowers and 47 buds. The flowers were 23.8 mm wide and 33.2 mm long and dark burgundy with an attractive yellow picotee, and very well and evenly presented along and around the inflorescences.

Carole has had the plant since early 2015 and obtained it from renowned *Cymbidium canaliculatum* grower Roger Herraman. Carole grows it under hard cover with no water over the colder months, generally May to September, when, at most, it gets a misting on a warm winter day.

Bill Murdoch Silver Certificates were awarded to:

a) *Dendrobium gracilicaule* 'Golden Leopard', owned and grown by Trish Peterson.

b) *Caladenia filamentosa* owned and grown by Nita Wheeler.

c) *Caladenia tentaculata* owned and grown by Nita Wheeler.

d) *Dendrobium striolatum* 'Magic', owned and grown by Murray Harding and Di Lester.

**G. Hermon Slade Trophy for Champion Australasian Native Hybrid**

The G. Hermon Slade trophies for Australasian species and hybrids were first issued in 2004. This year's Gold Trophy for best Australasian hybrid was awarded to Down Under Native Orchids (DUNO) for *Dendrobium* Martin 'Gold' which received an HCC from the ANOS judging panel at the 9th ANOS Conference in Brisbane. The nomination form noted it had 496 beefy gold flowers, measuring 31mm x 25mm, with an average of 7-8 flowers per inflorescence and inflorescences averaging 85mm long.

In 2012 it received an HCC from the AOC judging panel and in 2015 it was Champion Australasian Orchid at the Central Coast ANOS spring show and Reserve Champion at the Bellinger Valley Orchid Society show. *D.* Martin is registered as *D.* Tweetie x *D.* Duffy. The grex was registered by Jeanne Dunn in 2008 but the cross that produced this plant was made by DUNO using *D.* Tweetie 'Pie'. The species contributions in its background are 25% each *D. contextum*, *D. fuliginosum*, *D. pugioniforme* and *D. striolatum*. Callyn Farrell advised that it produces plants with surprisingly high flower counts. It grows in the DUNO tunnel house with high light conditions and under what is now most likely 50% black shade cloth. The mix is 80% No. 3 Kiwi Orchid Bark with 20% river gravel. It is watered once a week during the winter, depending on rainfall, and 2-3 times a week in the summer, and receives regular liquid fertiliser.

Three G. Hermon Slade Hybrid Silver Certificates were issued:

a) *Dendrobium* Hot and Grumpy 'Blue' owned and grown by Lorraine & Bill Dobson and bred by George Dimos.

b) *Dendrobium* Australian Freckles 'Best Blue' owned and grown by Down Under Native Orchids and bred by Neil Finch.

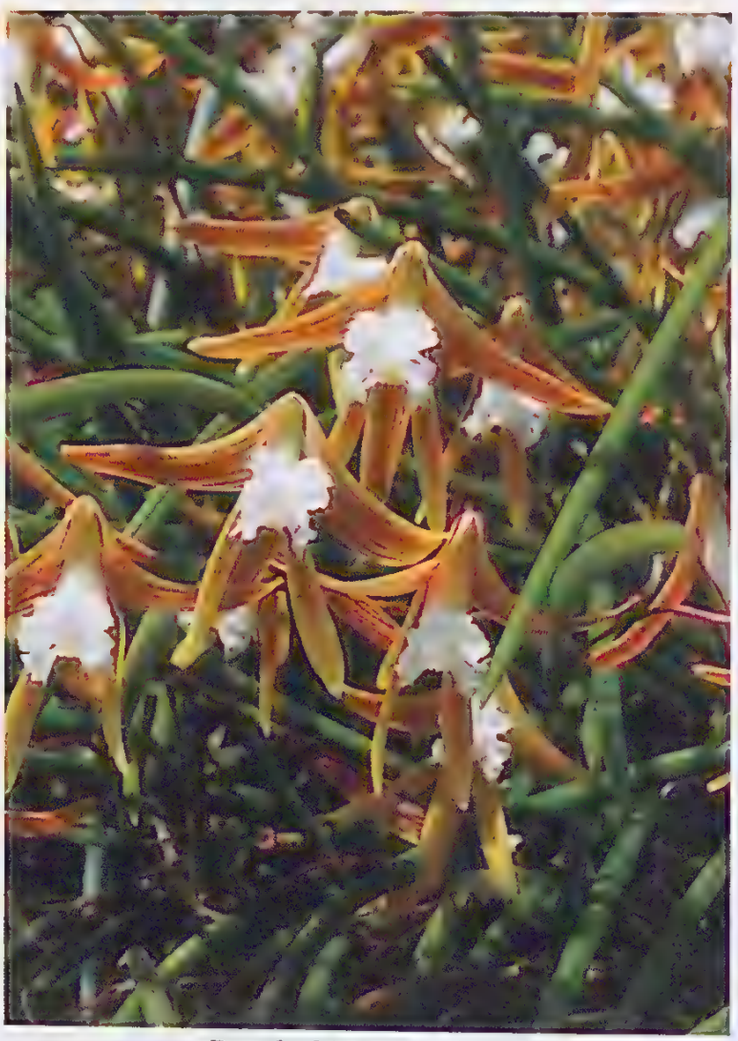
c) *Dendrobium* Oliver-Jack 'Gerard' owned and grown by Steve Howard and bred by Neil Finch.

**G. Hermon Slade Trophy for Champion Australasian Native Species**

This year's Gold Trophy was won by a fine plant of *Dendrobium alexandrae* owned by Phil Barrett. The plant was Champion Australasian Species at the ANOS Illawarra Group Sarcanthinae Show. It appears to have six inflorescences, each carrying three or four flowers. The flowers were pale green with darker green veining on the petals and sepals and maroon mottling on

*Caladenia filamentosa*. Photo Daniel Rajaratnam

*Caladenia tentaculata*. Photo Daniel Rajaratnam



*Dendrobium striolatum*

*Dendrobium* Martin 'Gold'

*Dendrobium* Hot and Grumpy 'Blue'.
Photo William Dobson

*Dendrobium* Australian Freckles 'Best Blue'.
Photo Melissa Young

*Dendrobium alexandrae*. Photo Daniel Rajaratnam

*Dendrobium* Oliver-Jack 'Gerard'. Photo David Hirst

the inside of the labellum, and on the petals and sepals, though mainly on the reverse side of the tepals. The flowers were 55 mm wide and 69 mm long, on 85 mm inflorescences.

Phil bought the plant from the group's sales table about five years ago. He grows it with his other *Dendrobium* and *Sarcochilus*, under a fibreglass roof in winter and shade cloth in summer. He has high hopes for this year's flowering for other Australasian species and hybrids which he obtained about the same time. This plant is a Phil Spence seedling. In about 2010 Illawarra Group made a decision to encourage members to try growing Australasian orchids and obtained a selection of advanced cool growing Australasian seedlings and divisions from Phil Spence. Due to their popularity with members, the Group subsequently obtained more plants from Phil, so Illawarra Group shows may become a popular destination for their display of Australasian orchids, and, hopefully, also a source of more entries for the G. Hermon Slade Trophy competition.

No Silver Certificates were issued for Australasian species this year due to the small number of entries.

It would be very pleasing to see an increase in nominations for the Ira Butler Committee trophies in all categories, and from all states and territories.

**Acknowledgements**

Thank you to the Gold Trophy winners for providing extra information about their plants and particularly to Callyn Farrell for his assistance with details about DUNO breeding history.

*Roslyn Capell is Hon. Secretary of ANOS Inc., an ANOS and AOC Judge, and was Hon. Secretary and Treasurer of the Ira Butler Trophy Committee from 1999 to 2005.*

**Endnote from Callyn Farrell**

*Dendrobium* Oliver Jack (*D.* Jiggi x *D. striolatum*) was registered on the 16/01/2004 by Down Under Native Orchids and seedlings sold under that name. However, one of the parents of the *D.* Jiggi (which is *D. schoeninum* × *D. teretifolium*) used by DUNO was incorrectly identified. *Dendrobium teretifolium* 'Black Pam' was subsequently identified as *D. fuliginosum*. Therefore, the parent *D.* Jiggi was actually *D.* Australian Freckles (*D. schoeninum* × *D. fuliginosum*).

A new hybrid *Dendrobium* Oliver-Jack (note the hyphen) with parentage *D.* Australian Freckles × *D. striolatum* was therefore registered with the Royal Horticultural Society on 15/4/2020. This registration was made as it caused the least amount of disruption to orchid growers internationally, as *D.* Oliver-Jack 'Gerard' FCC/AOC is one of the most sought-after and grown section *Rhizobium* hybrids.

# *Geodorum densiflorum* (Lam.) Schltr.

Text by Pam Porteus
portefam@optusnet.com.au

A few years ago, our neighbour asked us to come over to check out some plants he'd found which he thought might be orchids. He had filled a small hollow with purchased soil and in this area several leafy plants were showing their heads. We had a look and said we thought they were plants of *Geodorum densiflorum*. A few of the plants were fairly large and while none flowered that year, the following year several plants did flower and confirmed the identification.

*Geodorum densiflorum*. Photo Trevor Porteus

*Geodorum densiflorum* is one of many orchids whose name has had several changes, being known as *Geodorum pictum* (R.Br.) Lindl. when we first started growing orchids. It is a geophytic (terrestrial) orchid with common names such as the shepherd's crook or pink nodding orchid referring to the position of the flowers on the inflorescence. The species name *densiflorum* relates to the densely clustered flowers on the rachis and *Geodorum* is taken from the Greek 'geo' meaning earth and 'dorom' meaning gift.

*Geodorum densiflorum* is a small to medium sized, warm to hot growing species. In spring plants produce three to five leaves between 15 and 35 cm long and 4 - 8 cm wide. The leaves have three prominent ribs and four less prominent longitudinal veins. Depending on the season, leaves wither from the middle to the end of autumn with the plants dormant through winter. Plants take several years to mature in our experience, gradually developing longer and wider leaves as the plant matures.

*Geodorum densiflorum* showing seed pods. Photo Trevor Porteus

Tubers can be quite large at up to 6 cm across and are green and fleshy. A member of our local Gabi Gabi aboriginal group told us that while his people regularly used orchids as food items or for medicinal purposes, he wasn't able to definitively determine if this was the case for *Geodorum densiflorum*. Plants that we have in our garden are quite regularly found dug up and nibbled, possibly by bandicoots, so are obviously edible. One reference identified plants of this species as a good source of glue once the plant has been boiled.

*Geodorum densiflorum* closeup of raceme Photo Trevor Porteus

The 8-20 flowers per raceme are pale to deep pink tending to fade towards the tip of the segments,

with the labellum having maroon stripes and some spotting. Flowers are produced at the apex of an inflorescence that grows vertically from the plant and then arches over to 180° just below the rachis when flowering. From our observation, plants pollinate freely, and often every flower will produce a seed pod. The tip of the inflorescence straightens somewhat when the seed pod ripens, favouring seed dispersal.

*Geodorum densiflorum* is fairly wide-spread and is found from India to southern China and Taiwan in the north, southward and eastward through all of Southeast Asia, the Philippines, Borneo, Java, and New Guinea into the South Pacific Islands and Australia. It is the only species of the genus native to Australia, growing in coastal areas north from the Macleay River in New South Wales into Queensland and northern areas of the Northern Territory and Western Australia.

In Queensland it is quite widespread and is one of the orchids seen regularly over the years when bushwalking. Predominantly we have seen it growing in dry to wet sclerophyll forests, usually in sandy soils near or in coastal areas and in wallum-type country. Of course, our experience is limited to where we have bushwalked, but we have seen plants from Cairns through to the New South Wales (NSW) border, and on outlying islands. While we have often seen several plants in one area, they were never in large colonies.

In New South Wales this species is considered to be extremely vulnerable. The scientific committee of the New South Wales Government Office of Environment and Heritage state that there are thought to be fewer than ten populations of *Geodorum densiflorum* in NSW. The largest known population has been estimated to consist of around 200 plants, with other populations thought to be much smaller. There is one population in Cudgen Nature Reserve, and another has been recorded in Bundjalung National Park, however the status of this population is unknown.

The New South Wales government is not painting a good picture for the future of this species. It is threatened, as are most native species, by urban development and weeds and it is anticipated that they may become extinct in the wild in that state. Orchids including this one in Queensland are similarly under threat. Luckily, many of the plants we have seen have been in areas of national parks but this doesn't mean they are not vulnerable to human and animal activities.

Meanwhile, our neighbour's couple of plants have produced quite a few more and we have successfully transplanted a few small tubers into a bed in our yard. We wanted to produce a friable soil so we dug native potting mix into the existing soil at the base of a large tree so that plants would receive some cover from the hottest sun. While transplanted bulbs were growing in sunny positions, those we have seen on bushwalks are usually in semi-shade, so we attempted to reproduce the conditions. We planted the bulbs with roots facing down and the top of the bulb just at ground level. Watering is once or twice a week, depending on rainfall, when plants are in leaf and fertilizing is with some pelletised manure at least once during the growing season. Over the winter when plants are dormant, water is applied sparingly. We have never attempted growing plants in pots but imagine that cultivation would not be very different from other deciduous geophytic species.

This year two plants produced flowers, so we are hoping to assist with spreading them further afield. While the flowers are not spectacular at first glance, they are quite intricate and attractive when you look inside the cupped shape, and as with all native orchids, should be valued for themselves.

*Pam Porteus is an experienced Queensland grower and ANOS judge.*

**References**

Baker C & M Orchid Species Culture Sheets. www.orchidculture.com

https://www.environment.nsw.gov.au/determinations/GeodorumDensiflorumEndSpListing.htm

http://tropical.theferns.info/viewtropical.php?id=Geodorum+densiflorum

www.plantsoftheworldonline.org

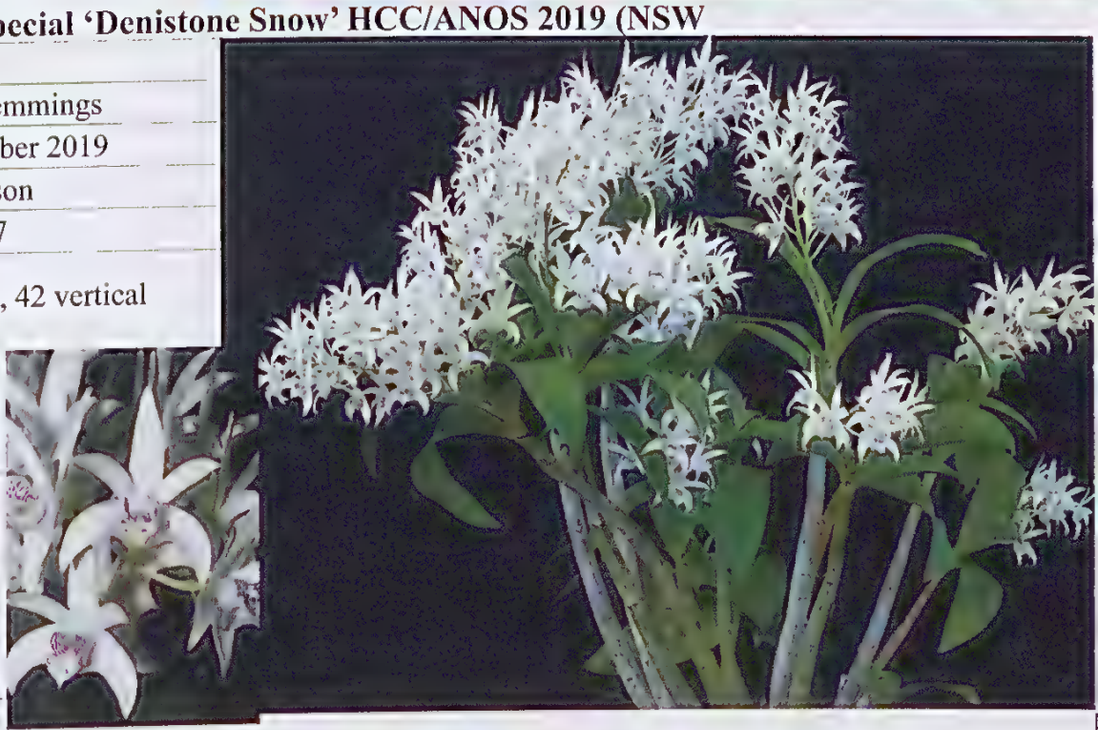
www.orchidspecies.com

## #364 *Cymbidium cananliculatum* 'PR-1' AM/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 82.5 |
| Owner | Carole Barnett |
| Date & event | 19 October 2019 |
| Photos by | Phil Radford |
| #flowers/inflorescences | 272 & 47 buds / 4 |
| Measurements(mm): | |
| flower | 23.8 across, 33.2 vertical |
| petal | 12.4L 6.4W |
| sepal | 13.1L 5.6W |
| dorsal | 15.7L 5.5W |
| labellum | 6.3L 6.2W |
| inflorescence length | 486 |
| Detailed avge points: | |
| shape(25) | 20.5 |
| colour(20) | 17.3 |
| size(15) | 11.9 |
| substance/texture(10) | 7.8 |
| floriferousness(15) | 12.1 |
| habit/attractive(15) | 12.9 |

## #365 *Dendrobium* Sundaani Special 'Denistone Snow' HCC/ANOS 2019 (NSW

| | |
|---|---|
| Points | 76.93 |
| Owner | David Hemmings |
| Date & event | 6 September 2019 |
| Photos by | Bill Dobson |
| #flowers/inflorescences | 246 / 17 |
| Measurements(mm): | |
| flower | 36 across, 42 vertical |
| petal | 24L 6W |
| sepal | 24L 10W |
| dorsal | 26L 8W |
| labellum | 14L 8W |
| inflorescence length | 170 |
| Detailed avge points: | |
| shape(25) | 19.82 |
| colour(20) | 15.14 |
| size(15) | 11.21 |
| substance/texture(10) | 7.64 |
| floriferousness(15) | 11.89 |
| habit/attractive(15) | 11.21 |

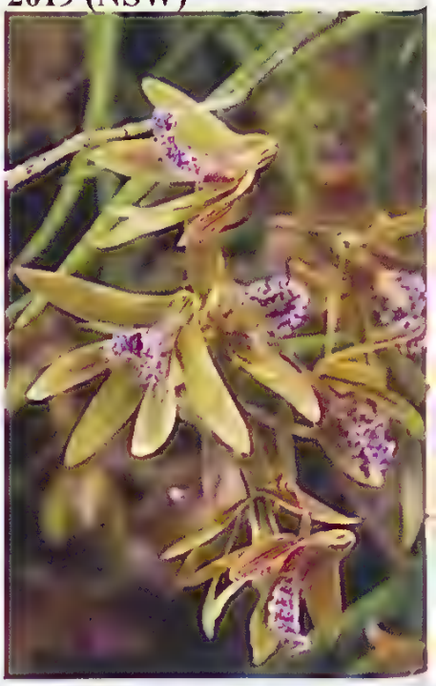


## #366 *Dendrobium gracilicaule* 'Big Jim' AM/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 80.92 |
| Owner | David Hemmings |
| Date & event | 31 August 2019 |
| Photos by | Bill Dobson |
| #flowers/inflorescences | 120 / 15 |
| Measurements(mm): | |
| flower | 20 across, 12 vertical |
| petal | 10L 4W |
| sepal | 13L 6W |
| dorsal | 12L 7W |
| labellum | 12L 6W |
| inflorescence length | 100 |
| Detailed avge points: | |
| shape(25) | 20.11 |
| colour(20) | 16.27 |
| size(15) | 12.66 7.9 |
| substance/texture(10) | 8.05 |
| floriferousness(15) | 11.97 |
| habit/attractive(15) | 11.86 |

## #367 *Dendrobium* Australian Ginger 'Denistone Fairy Dancer' ACC/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 87.4 |
| Owner | David Hemmings |
| Date & event | 31 August 2019 |
| Photos by | Bill Dobson |
| #flowers/inflorescences | 184 & 9 buds / 45 |
| Measurements(mm): | |
| flower | 39 across, 25 vertical |
| petal | 23L 6W |
| sepal | 21L 6W |
| dorsal | 21L 6W |
| labellum | 22L 9W |
| inflorescence length | 116 |
| Detailed avge points: | |
| shape(25) | n/a |
| colour(20) | |
| size(15) | |
| substance/texture(10) | |
| floriferousness(15) | |
| habit/attractive(15) | |



## #368 *Sarcochilus* You Beauty 'Dellys' HCC/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 78.0 |
| Owner | John Douglas |
| Date & event | 11 October 2019 |
| Photos by | Bill Dobson |
| #flowers/inflorescences | 24 & 28 buds / 4 |
| Measurements(mm): | |
| flower | 25 across, 26 vertical |
| petal | 13L 9W |
| sepal | 18L 11W |
| dorsal | 16L 11W |
| labellum | 7L 6W |
| inflorescence length | 150 |
| Detailed avge points: | |
| shape(25) | 19.0 |
| colour(20) | 16.2 |
| size(15) | 12.4 |
| substance/texture(10) | 8.0 |
| floriferousness(15) | 10.3 |
| habit/attractive(15) | 12.1 |

## #369 *Dendrobium* Anthedon Splendour 'Rainforest Rhapsody' AM/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 83.75 |
| Owner | Barry Moore |
| Date & event | 31 August 2019 |
| Photos by | Bill Dobson |
| #flowers/inflorescences | 728 & 6 buds / 104 |
| Measurements(mm): | |
| flower | 53 across, 38 vertical |
| petal | 36L 3W |
| sepal | 32L 4W |
| dorsal | 32L 4W |
| labellum | 12L 7W |
| inflorescence length | 130 |
| Detailed avge points: | |
| shape(25) | 21.33 |
| colour(20) | 16.61 |
| size(15) | 12.38 |
| substance/texture(10) | 8.16 |
| floriferousness(15) | 12.94 |
| habit/attractive(15) | 12.33 |

## #370 *Dendrobium gracilicaule* 'Golden Leopard' HCC/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 78.45 |
| Owner | Trish Peterson |
| Date & event | 6 September 2019 |
| Photos by | Bill Dobson |
| #flowers/inflorescences | 280 & 12 buds / 21 |
| Measurements(mm): | |
| flower | 15 across, 16 vertical |
| petal | 10L 2.5W |
| sepal | 9L 3.5W |
| dorsal | 10L 4.5W |
| labellum | 6L 5W |
| inflorescence length | 80 |
| Detailed avge points: | |
| shape(25) | 19.5 |
| colour(20) | 16.2 |
| size(15) | 11.5 |
| substance/texture(10) | 7.8 |
| floriferousness(15) | 10.625 |
| habit/attractive(15) | 11.875 |

## #371 *Sarcochilus* Frolic 'Vera Cavelle' AD/ANOS 2019 (NSW)

| | |
|---|---|
| Points | |
| Owner | David Knight |
| Date & event | 19 October 2019 |
| Photos by | Phil Radford |
| #flowers/inflorescences | 14 & 3 buds / 1 |
| Measurements(mm): | |
| flower | 18.4 across, 20.2 vertical |
| petal | 7.8L 5.3W |
| sepal | 9.1L 7.6W |
| dorsal | 8.6L 6.5W |
| labellum | 2.5L 4W |
| inflorescence length | 154 |
| Detailed avge points: | |
| shape(25) | n/a |
| colour(20) | |
| size(15) | |
| substance/texture(10) | |
| floriferousness(15) | |
| habit/attractive(15) | |

## #372 *Sarcochilus hartmannii* 'Yellow Baby' AM/ANOS 2019 (NSW)

| | |
|---|---|
| Points | 80.70 |
| Owner | Peter Dowling |
| Date & event | 19 October 2019 |
| Photos by | Phil Radford |
| #flowers/inflorescences | 127 & 49 buds / 12 |
| Measurements(mm): | |
| flower | 27.8 across, 30.2 vertical |
| petal | 11.3L 9.7W |
| sepal | 12.8L 12.5W |
| dorsal | 12.2L 13.7W |
| labellum | 3L 3W |
| inflorescence length | 382 |
| Detailed avge points: | |
| shape(25) | 20.4 |
| colour(20) | 16.6 |
| size(15) | 13.3 |
| substance/texture(10) | 7.8 |
| floriferousness(15) | 11.2 |
| habit/attractive(15) | 11.4 |

## Shows and Events 2020

**July 2020 25th Annual ANOS Sydney Group Auction**. Venue: Federation Pavilion, Castle Hill Showground, Castle Hill, NSW. 8:00am – 1:00pm

**August 2020 14th–16th St. Ives Orchid Fair** 'The Big One' Venue: St. Ives Showground. Mona Vale Road, St. Ives 9:00 am to 4:00 pm (3:00 PM on Sunday 18 August)

**August 27th–29th ANOS Far North Coast (NSW) Group Spring Show.** Venue: Ballina Bunnings Store from Thursday 27th to Saturday 29th August 2020 with setup on Wednesday 26th.

**August 2020 29th–30th 2nd Annual ANOS Sydney Group Australasian Native Orchid Show** 2020 TBA 9:00 am – 5:00 pm

**September 5th–6th Final Kempsey Speciosum Spectacular** will be held over the weekend . Benching will begin on Friday 4th and the ANOS Mid North Coast Group meeting will be on Friday night with guest speakers as usual.

**September 12th ANOS Illawarra Spring Show** Saturday 12th and Sunday 13th September Venue: The Old Courthouse, Cliff Rd Wollongong.

**September 12th ANOS Newcastle Group Show** Venue: Windale / Gateshead Bowling Club , 2A Lake Street, Windale. 2306.

**September 19th–20th 38th Annual ANOS Sydney Spring Native Orchid Show** (Sat. 8:30 am–4 pm; Sun. 8:30–3:00 pm) Venue: Kellyville Village (in front of COLES), 92A Wrights Rd Kellyville NSW

### 19th DENDROBIUM SPECIOSUM SPECTACULAR

### & AUSTRALASIAN ORCHID SPECIES and HYBRID SHOW (2020) *Kempsey, NSW*

### (Ted & Winsome Walmsley and ANOS Mid North Coast Group)

Dates for this event which provides a first class opportunity to see some of the best speciosums in flower as well as a wide range of other Australasian orchids and hybrids, are given below. Note the dates and plan to be there as **this will be the final such show**. All are welcome to exhibit and judging will be by an all ANOS panel. Monetary prizes and trophies will be awarded in a range of classes including species, hybrids and terrestrials.

Interstate entries are encouraged with a prize for the most travelled orchid.

**Dates: Sat 5th Sept 10am to 4pm** [Closed for judging b/w 11am and 12 noon this day]

**Sun 6th Sept 9am to 2pm**

**Location:** Kempsey Dirt Bike Track, Alverton St., Greenhill, via Kempsey.

**Details:** Refer to the website: **www.kempseyspeciosumspectacular.com.au**

**OR** contact Ted Walmsley on **(02) 6562-7150** or John Zietsch on **(02) 6554-9733.**

Royal Botanic Gardens Victoria
RBG00021798


## SPIDER ORCHIDS *CALADENIA* ORCHIDS OF AUSTRALIA

Gary Backhouse

Published 2020

This is a comprehensive guide to the 400 species and subspecies of *Caladenia* orchids and their relatives that occur in Australia with over 1,300 photographs of wild orchids in their natural habitat. Each entry has scientific and common name. Genera *Adenochilus, Eriochilus*, *Leptoceras*, *Praecoxanthus* included. One species per page.

Soft cover, 412 pages

**$50.00 plus postage**

Visa / MasterCard Accepted

Australian Orchid Foundation

**P. O. Box 440**
**Yarra Glen Vic. 3775**
**Phone (03) 9730 1995**
**australianorchidfoundation.org.au**

## Directory of ANOS Groups (and Associated Societies)

### NEW SOUTH WALES

- **ANOS Central Coast**; PO Box 3010, Erina NSW 2250 - Neville Lee (02)4340 5157 2nd Wednesday each month, 8pm. Narara Community Centre, 2 Pandala Rd, Narara 2250
- **ANOS Far North Coast Inc.**: 2 Treelands Cres, Ballina, NSW 2478 - Keith Skaines (02)6686 6303 3rd Saturday of month (except Dec. & Jan.), 2pm various venues, contact the secretary.
- **ANOS Illawarra**: 2 Wilford St, Corrimal NSW 2518 - Bruce Porter (02)4284 8308 2nd Tuesday each month, 7pm. Old Court House, Wollongong.
- **ANOS Macarthur and District**: 7 Pickett Ave, Minto NSW 2566 NSW - Wally Southwell (02) 4681 8589 3rd Tuesday each month, 8pm. Birriwa Community Hall, Fitzpatrick Rd, Mt Annan.
- **ANOS Mid-North Coast**: 69 The Lakes Way, Forster NSW 2428 - John Zietsch (02)6554 9733 3rd Sunday each month, 12 noon, followed by BBQ. Contact for location - Taree or Wauchope
- **ANOS Newcastle Inc.**: PO Box 5079 Raymond Terrace NSW 2324 - Peter Denning (02)4975 3729 4th Thursday of month, 7.30pm. Elermore Vale Community Centre, Croudace St, Elermore Vale.
- **ANOS Sydney Inc.**: 9 Alicia St, Glenwood NSW 2768 - Andrew Locke (02)8824 6338 3rd Friday each month, 8pm. Senior Citizens Hall, B.H. Community Centre, Conie Ave, Baulkham Hills.
- **ANOS Warringah Inc.**: PO Box 421, Forestville NSW 2087 - Bill Dobson (02)9981 2525 3rd Tuesday each month, 8pm. Community Hall, Starkey St, Forestville.

### QUEENSLAND

- **ANOS Beenleigh Inc.**: PO Box 1130, Beenleigh QLD 4207 - David Cleal (07)3805 6865 1st Thursday each month, 7.30pm. Showground Hall, James St, Beenleigh
- **ANOS Kabi Inc.**: PO Box 424, Aspley QLD 4034 - David James (07) 3359 5752 2nd Tuesday of month except Jan., 7.30pm. Isabella Griffin Room, Strathpine Community Centre, 199 Gympie Road, Strathpine.
- **ANOS Mackay and District**: 24 Barton St, Mackay, QLD - Arthur Pinkney (07)4952 2186 2nd Thursday each month, Andergrove Community Centre, Celeber Drive, Andergrove.
- **ANOS Townsville Inc.**: 92 Curie St, Wulguru QLD 4811 - John Nuss (07)4778 4311 1st Tuesday monthly (excl. Jan.) 8pm Townsville O.S. Hall, Joe Kirwan Pk, cnr Bamford Lane & Charles St, Townsville
- **Native Orchid Society of Toowoomba Inc**. 106 Umbiram Rd, Wyreema QLD 4352 - Josie Wright (07)4696 2150 1st Friday of month, 7.30pm Lutheran Church Hall, cnr West and Alderley St, Toowoomba

### SOUTH AUSTRALIA

- **Native Orchid Society of South Australia Inc.**: PO Box 565 Unley SA 5061 - Les Nesbitt (08) 8261 1550 4th Tuesday each month, 8pm. St Matthew's Hall, 67 Bridge St, Kensington.

### VICTORIA

- **ANOS Geelong Inc.**: 609 South Street, Ballarat VIC 3350 - Anita Hinton (03) 9743 6040 2nd Wednesday each month, 7.30pm. Uniting Church Hall, Yarra St, Geelong.
- **ANOS Melbourne Suburbs Inc.**: PO Box 169, Bayswater VIC 3153 - Richard Johnson 04 7808 7752 4th Wednesday of month (excl. December), 7.30pm. Montrose Primary School, Leith Rd, Montrose 3765
- **ANOS Victoria Inc.**: PO Box 308, Boronia VIC 3155 - (03)9387 2771 1st Friday each month, 8pm. Toorak Uniting Church Hall, , 603 Toorak Rd, Toorak.

### WESTERN AUSTRALIA

- **ANOS Western Australia Inc.**: Mrs Lyn Morgan, 99 Bywater Way, Wilson WA 6107 - (08)9451 2164 2nd Monday each month, 8pm. Wilson Community Hall, Braibrise Rd, Wilson.

### NEW ZEALAND

- **ANOS New Zealand Native Orchid Group** 42 Titiro Moanna Rd, Korokoro, Lower Hutt 5012

*Dendrobium falcatus* Mt Sugarloaf, NSW Photo Peter Adams